REPORT NUMBER: SNCAP-CAL-06-03

NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST

GENERAL MOTORS CORPORATION
2006 HUMMER H3
MPV

NHTSA NUMBER: M60115

PREPARED BY:
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Test Date: December 06, 2005

FINAL REPORT

PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
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Technical Report Documentation Page

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15. *Supplementary Notes*

16. Abstract

A 55/28 kph 90^0 Impact Moving Deformable Barrier NCAP Side Impact Test was conducted on the subject 2006 Hummer H3 MPV in accordance with the specifications of the Office of Crashworthiness Standards Test Procedure for the generation of consumer information on vehicle side crash protection. This test was conducted at the Calspan Corporation Crash Test Facility in Buffalo, New York, on December 06, 2005.The impact velocity of the Moving Deformable Barrier (MDB) was 62.44 km/h, and the ambient temperature at the struck side (driver side) of the vehicle was 19.8°C. The target vehicle's maximum post test static crush was 179 mm at level 1. The test vehicle's occupant performance is as follows:

	DRIVER	PASS.
Left Upper Rib (LUR) Accel., g	13.1	19.8
Left Lower Rib (LLR) Accel., g	15.0	23.6
Lower Spine (T_{12}) Accel., g	17.9	28.0
Thoracic Trauma Index (TTI)	16	26
Pelvis (PEV) Accel., g	18	20
HIC	47.6	157.4

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.

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 5111 (NAD-52) 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-22005. The purpose of this test was to evaluate side impact protection in a 2006 Hummer H3 MPV manufactured by General Motors Corporation. The side impact test was conducted in accordance with the Laboratory Test Procedure for New Car Assessment Program Side Impact Testing dated July 1997.

SECTION 2

SUMMARY OF NCAP SIDE IMPACT TEST

A model year 2006 Hummer H3 MPV was impacted on the left (driver's) side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the tow road guidance system at a velocity of 62.44 km/h. The specified impact velocity range is from 61.1 to 62.7 km/h. The test (target) vehicle was stationary and positioned 63° to the line of forward motion. The weight of the vehicle as tested was 2398.5 kg and the test weight of the MDB was 1362.5 kg. The test was conducted at the Calspan Corporation Transportation Sciences Center on December 06, 2005.

One (1) real-time motion picture camera and ten (10) high-speed motion picture 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 Side Impact Dummies (SID/HIIIs) can be found in Appendix A.

Two 50th percentile adult male SID/HIII's were placed in the driver (P1) and left rear passenger (P4) designated seating positions according to instructions specified in the Laboratory Test Procedure for New Car Assessment Program Side Impact Testing dated July 1997. Each SID/HIII was instrumented in the following locations:

- Left Upper Rib (LUR) uni-axial accelerometer (Y-axis primary and redundant)
- Left Lower Rib (LLR) uni-axial accelerometer (Y-axis primary and redundant)
- Lower Thoracic Spine (T12) uni-axial accelerometer (Y-axis primary and redundant)
- Pelvic (PEV) section uni-axial accelerometer (Y-axis primary and redundant)
- Head Center of Gravity (CG) tri-axial accelerometers (X, Y and Z axes primary and redundant)
- Upper Neck load cell (Fx, Fy, Fz, Mx, My, Mz)

The test vehicle was instrumented with twenty-one (21) structural accelerometers and the MDB was instrumented with five (5) accelerometers.

2.2 GENERAL COMMENTS

The test vehicle sustained a maximum static crush of 179 mm at level 1, 1800 mm rearward of the left vertical impact point. The driver and passenger SID/HIII's, Serial Nos. 905 and 906 respectively, were calibrated just prior to this test.

Test summaries and post-test observations are presented in Section 3. The vehicle, camera, and occupant measurements are presented in Section 4. Appendix A contains the still photograph prints. Appendix B contains the driver and passenger SID/HIII's, vehicle, and MDB response data traces. Appendix C contains the SID/HIII's configuration and performance verification data. Appendix D contains the test equipment information.

The occupant data is summarized below:

ATD position	HIC(36)	T_1	T_2	TTI (G's)	Peak Pelvis (G's)
Driver	47.6	91.3	127.3	16	18
Passenger	157.4	75.7	84.5	26	20

SUPPLEMENTAL RESTRAINT INFORMATION

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

The test instrumentation data listed in Appendix B can be found on the NHTSA website: www.nhtsa.dot.gov.

DATA SHEET NO. 1

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005

TEST VEHICLE INFORMATION AND VEHICLE OPTIONS

Make	General Motors Corporation	Driver Front Airbag	Yes
Model	H3	Driver Side Curtain Airbag	No
Body Style	MPV	Driver Side Torso Airbag	No
NHTSA No.	M60115	Driver Pretensioners	Yes
VIN	5GTDN136668100762	Driver Load Limiters	Yes
Color	White	Driver Power Seats	No
Engine Disp.(L)	3.5	Rear Pass. Side Curtain Airbag	No
Engine Cylinders	5	Rear Pass. Side Torso Airbag	No
Engine Placement	Longitudinal	Rear Pass. Pretensioners	No
Transmission Type	Manual	Rear Pass. Load Limiters	No
Transmission Speeds	5	Rear Pass. Power Seats	NA
Final Drive	4 Wheel	Tilt Wheel	Yes
Air Conditioning	Yes	Anti-lock Brakes	Yes
Power Steering	Yes	Traction Control	No
Power Brakes	Yes	Power Windows	Yes
Delivery Date	11/29/2005	Power Door Locks	Yes
Odometer Reading (km)	410	Automatic Door Locks (ADL)	Yes
Dealer	Hummer of Buffalo, Williamsville, NY 14231	Owner's Manual Details Instructions on Disabling ADLs	No

DATA FROM CERTIFICATION LABEL

Manufactured By	General Motors Corporation	GVWR (kg)	2654
		GAWR Front (kg)	1384
Date of Manufacture	04/05	GAWR Rear (kg)	1452

VEHICLE CAPACITY DATA

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket/Bench/Split Bench	Bucket/Bench/Split Bench		
Number Of Occupants	2	3		5
Capacity Wt. (VCW) (kg)				536
Cargo Wt. (RCLW) (kg)				195.8

*Maximum RCLW of 136.1 kg used for target calculation.

DATA SHEET NO. 1 (continued)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW) (Axle)			Fully Loaded (Axle)			As Tested (ATW) (Axle)		
		Front	Rear	Total	Front	Rear	Total	Front	Rear	Total
Left	kg	557.5	523.0		618.5	660.5		622.0	647.5	
Right	kg	515.5	510.5		511.5	615.0		511.0	618.0	
Ratio	%	50.9	49.1		47.0	53.0		47.2	52.8	
Totals	kg	1073.0	1033.5	2106.5	1130.0	1275.5	2405.5	1133.0	1265.5	2398.5

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	2106.5
Weight of 2 P572E ATDs (81.2 kg each)	kg	162.4
Rated Cargo/Luggage Weight (RCLW)	kg	136.1
Calculated Vehicle Target Weight (TVTW)	kg	2405.0

* Actual As Tested Weight (ATW) will be TVTW -4.5/-9.1 kg

Weight of Ballast (including instrumentation package and cameras): 129.6 kg

TEST VEHICLE ATTITUDES

	Units	LF	RF	LR	RR
As Delivered	mm	942	959	1009	1024
Fully Loaded	mm	932	956	966	987
As Tested	mm	932	957	971	997

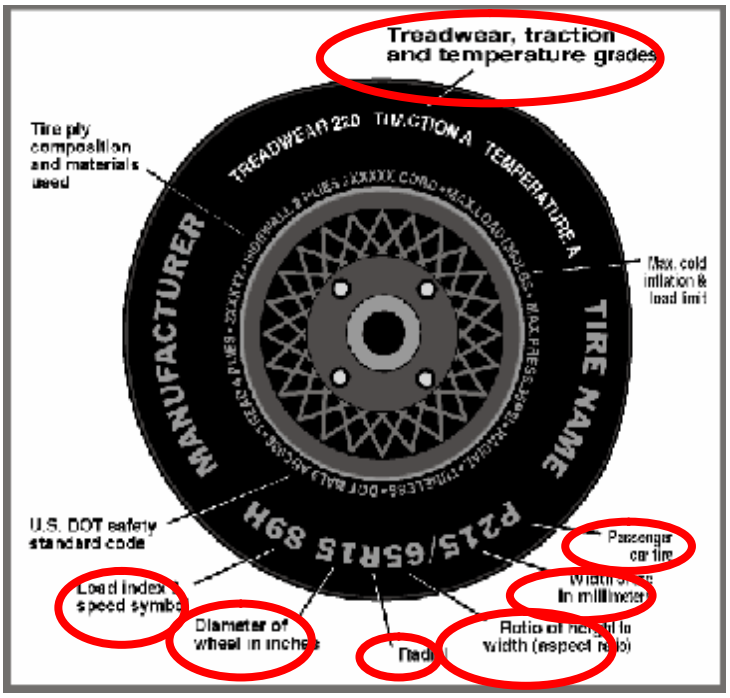
TEST VEHICLE VERTICAL IMPACT LINE AND CG

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2841
Target Impact Point Aft of Front Axle	mm	481
Actual Impact Point Aft of Front Axle	mm	479
As Tested CG (aft of front axle)	mm	1499

DATA SHEET NO. 2

TEST VEHICLE TIRE INFORMATION

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005



DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	400	400
Cold / Test Pressure (kPa)	210	210
Recommended Tire Size	P265/75R16	P265/75R16
Tire Size on Vehicle	P265/75R16	P265/75R16
Tire Manufacturer	Goodyear	Goodyear
Tire Name	Wrangler RT/S	Wrangler RT/S
Tire Type	P	P
Tire Width (mm)	265	265
Ratio of Height to Width (aspect ratio)	75	75
Radial	R	R
Wheel Diameter	16	16
Load Index & Speed Symbol	114S	114S
Treadwear	340	340
Traction Grade	A	A
Temperature Grade	B	B

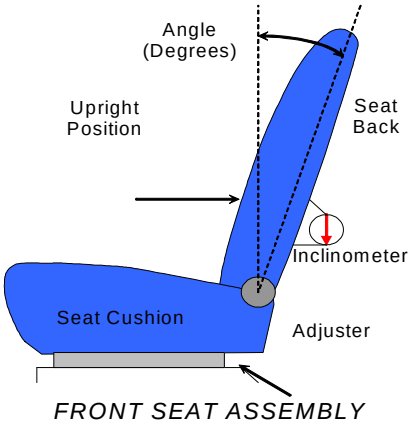
DATA SHEET NO. 3

TEST VEHICLE INFORMATION

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005

NORMAL DESIGN RIDING POSITION

The driver and passenger seat back is positioned to the manufacturer's designated angle.



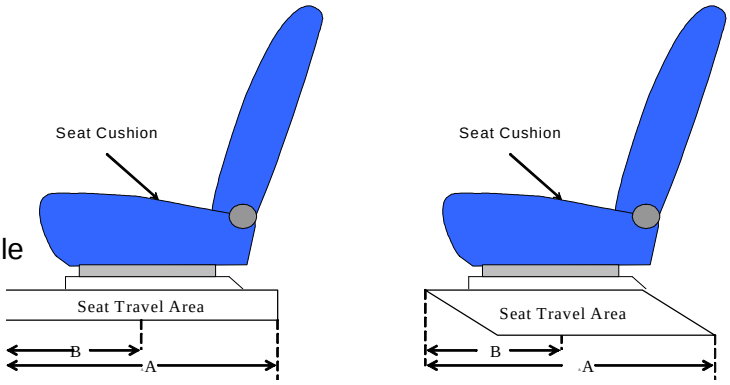
FRONT SEAT ASSEMBLY

SEAT BACK POSITION

	Driver Seat	Rear Seat
Test Detent (forward-most detent defined as 0)	Detent 6	Not Adjustable
Angle (deg. from forward-most locking position)	12	Not Adjustable
Alternative Measurements to Verify Test Position	NA	NA

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

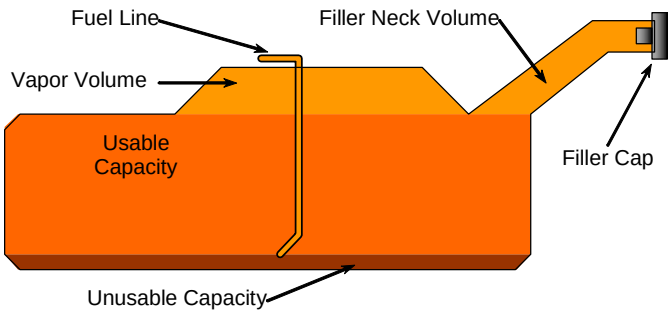
	Driver Seat	Rear Seat
Total Fore/Aft Travel (A) (mm)	240	NA
Test Position (B) (mm)	120	NA
Test Detent (forward-most detent defined as 0)	12	NA
Total Number of Detents (including 0)	25	NA

DATA SHEET NO. 3 (CONTINUED)
TEST VEHICLE INFORMATION

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005

FUEL SYSTEM INFORMATION

The test vehicle is equipped with an electric fuel pump. The fuel pump operates for approximately two seconds after the ignition is placed in the "ON" position, after which the fuel pump automatically shuts off. The fuel filler door is located on the left rear fender. The standard fuel tank occupies the area under the rear seat.



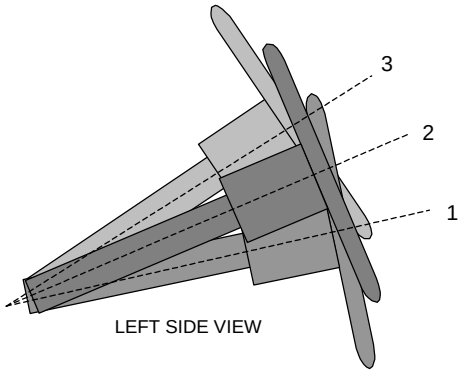
VEHICLE FUEL TANK ASSEMBLY

FUEL TANK CAPACITY

	Liters
Usable Capacity of "Standard" Fuel Tank	86.69
Usable Capacity of "Optional" Fuel Tank	NA
Stoddard Used For Test (92%-94% of Fuel Tank Usable Capacity)	80.63

STEERING COLUMN ADJUSTMENT

Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes when moved through its full range of motion. An aluminum plate is placed across the rim of the steering wheel, an inclinometer is placed on the plate and the angle is measured.



STEERING COLUMN ASSEMBLY

STEERING COLUMN POSITION

	Fore/Aft Position (mm)	Tilt (degrees)	Tilt (detent)
Lowermost Position No. 1	NA	15.4	3
Geometric Center Position No. 2 *	NA	19.7	2
Uppermost Position No. 3	NA	28.3	0

DATA SHEET NO. 4

MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005

MDB SPECIFICATIONS

Measurement Description	Length (mm)
Overall Width of Framework Carriage	1250
Overall Length Including Honeycomb Face	4120
Wheel base of Framework Carriage	2590
Tread of Framework Carriage (front & rear)	1875
C.G. Location aft of Front Axle	1104

MDB WEIGHTS

	Units	Front Axle	Rear Axle	Total
Left	kg	409.5	281.5	
Right	kg	372.5	299.0	
Ratio	%	57.4	42.6	
Totals	kg	782.0	580.5	1362.5

MDB SPEED AND IMPACT ANGLE DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	61.1 to 62.7	62.44
Trap No. 2 Velocity (Redundant)	km/h	61.1 to 62.7	62.44

POST TEST OBSERVATIONS

MDB LEFT EDGE IMPACT POINT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	2 mm forward
Vertical Offset	mm	+/-20	5 mm below

DATA SHEET NO. 5

POST TEST OBSERVATIONS

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Front Seat SID/HIII	Rear Seat SID/HIII
Dummy Type / Serial No.	SID/HIII / 905	SID/HIII / 906
Head Contact	Back of head to B-pillar trim, top of head to side window	Side of head to upper C-pillar trim, back of head to shoulder belt D-ring
Upper Torso Contact	Left arm to B-pillar trim and door trim above the arm rest	Left arm to C-pillar trim and door trim
Lower Torso Contact	Pelvis to door trim below the arm rest	Pelvis to C-pillar trim and door trim
Left Knee Contact	Left knee to door trim	Left knee to door trim
Right Knee Contact	Right knee to left knee	Right knee to left knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

Description	Front	Rear
Locked/Unlocked Doors	Doors were locked	Doors were locked
Left Side Door Opening	Door remained closed and latched; Door opened without tools	Door remained closed and latched; Door opened without tools
Right Side Door Opening	Door remained closed and latched; Door opened without tools	Door remained closed and latched; Door opened without tools
Seat Movement	0	0
Seat Back Failure	None	None

POST TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	No Separation
Sill Separation	None
Windshield Damage	None
Window Damage	None
Other Notable Effects	Right rear tire deflated during the impact event

SUPPLEMENTAL RESTRAINT INFORMATION

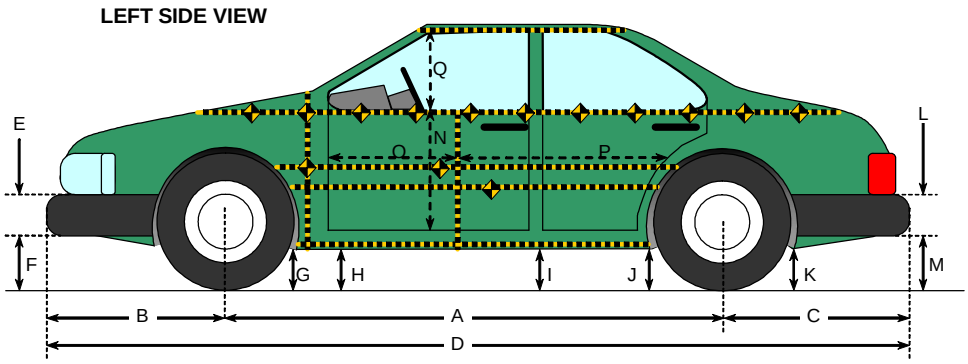
Restraint Type	Left Front (Driver)		Left Rear (Passenger)	
	Installed	Deployed	Installed	Deployed
Front Airbag	Yes	No	No	NA
Side Torso Airbag	No	NA	No	NA
Head Bag	No	NA	No	NA
Curtain Airbag	No	NA	No	NA

DATA SHEET NO. 6

VEHICLE PRE-TEST AND POST-TEST MEASUREMENTS

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005

All



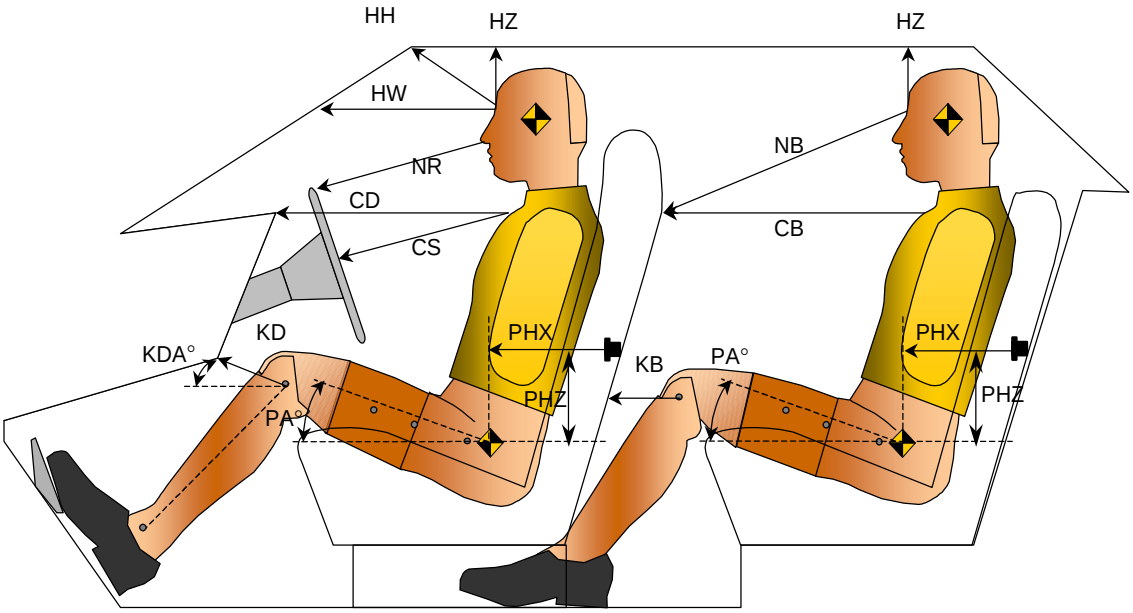
Measurements in mm

Code	Measurement Description	Pre-Test (delivered)	Pre-Test (as tested)	Post-Test (as tested)	Difference
A	Wheelbase	2841	2841	2840	1
B	Front Axle to FSOV	775	768	784	-16
C	Rear Axle to RSOV	1112	1119	1097	22
D	Total Length at Centerline	4728	4728	4721	7
E	Front Bumper Thickness	380	380	387	-7
F	Front Bumper Bottom to Ground	425	428	438	-10
G	Sill Height at Front Wheel Well	460	444	425	19
H	Sill Height at Front Door Leading Edge	461	445	425	20
I	Sill Height at "B" Pillar	486	456	428	28
J1	Sill Height at Rear Wheel Well	455	420	440	-20
J2	Pinch Weld Height at Rear Wheel Well	497	462	442	20
K	Sill Height Aft of Rear Wheel Well	515	466	468	-2
L	Rear Bumper Thickness	140	140	140	0
M	Rear Bumper Bottom to Ground	515	468	460	8
N	Sill Height to Window Bottom Sill	768	768	763	5
O	Front Door Leading Edge to Impact CL	722	722	761	-39
P	Rear Door Trailing Edge to Impact CL	979	979	926	53
Q	Front Window Opening	366	366	368	-2
R	Right Side Length	4536	4536	4534	2
S	Left Side Length	4463	4463	4521	-58
T	Vehicle Width at "B" Post	1719	1719	1552	167

DATA SHEET NO. 7

SID/HIII LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005

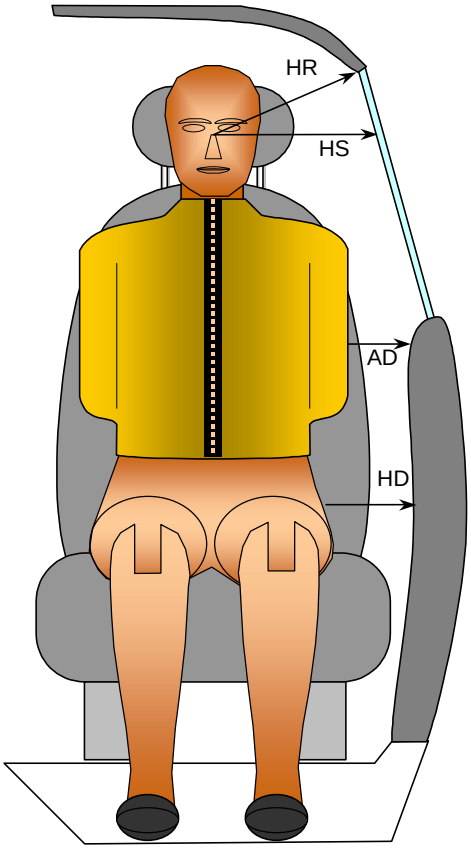


Driver Code	Pass. Code	Measurement Description	Driver S/N 905		Passenger S/N 906	
			Length(mm)	Angle(°)	Length(mm)	Angle(°)
HH		Head to Header	761			
HW		Head to Windshield	862			
HZ	HZ	Head to Roof	202		214	
NR	NB	Nose to Rim/Nose to Seatback	494		586	
CD	CB	Chest to Dash or Seatback	634		515	
CS		Chest to Steering Wheel	332			
KDL	KBL	Left Knee to Dash or Seatback	193	25.0	173	17.0
KDR	KBR	Right Knee to Dash or Seatback	187	25.0	180	23.0
PA	PA	Pelvic Angle		23.2		23.0
PHX	PHX	H-Point to Striker (X-Axis)	75		213	
PHZ	PHZ	H-Point to Striker (Z-Axis)	78		219	

DATA SHEET NO. 8

SID/HIII LATERAL CLEARANCE DIMENSIONS

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005



FRONT VIEW OF DUMMY

Code	Measurement Description	Units	Driver S/N 905	Passenger S/N 906
HR	Head to Side Header	mm	245	245
HS	Head to Side Window	mm	380	395
AD_1	Arm to Door (at upper rib level)	mm	91	65
AD_2	Arm to Door (at lower rib level)	mm	78	48
HD	H-Point to Door	mm	145	95

DATA SHEET NO. 9

VEHICLE SIDE MEASUREMENTS

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
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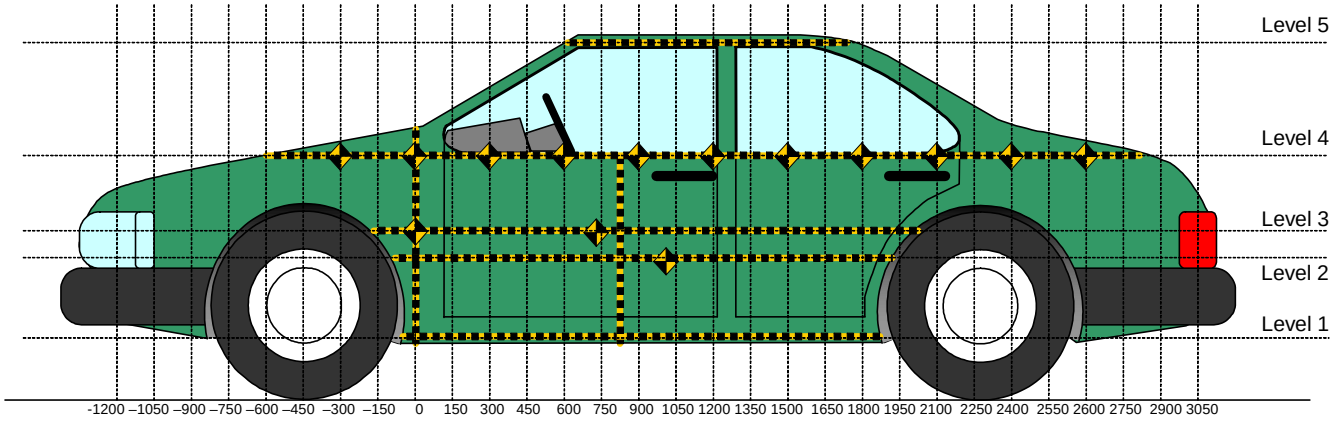


All Measurements Shown in mm

LEFT SIDE VIEW

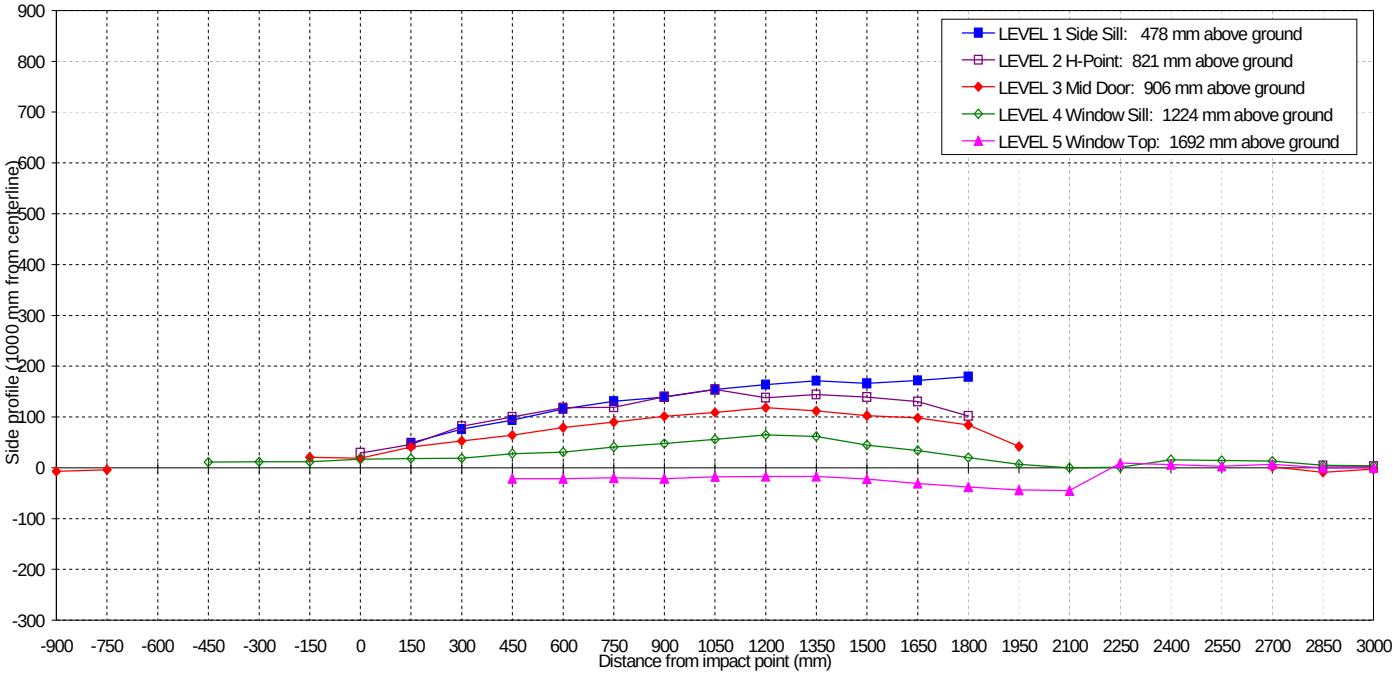
Measurements are taken with vehicle in the as tested condition.
Measurements along the vertical 750 mm.
All measurements below in mm.

Level	Measurement Description	Maximum Exterior Static Crush	Height Above Ground	Distance From Impact
1	Sill Top	179	478	1800
2	Occupant H-Point	154	821	1050
3	Mid Door	118	906	1200
4	Window Sill	65	1224	1200
5	Window	9	1692	2250
	Maximum Penetration	179		

DATA SHEET NO. 10

VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005



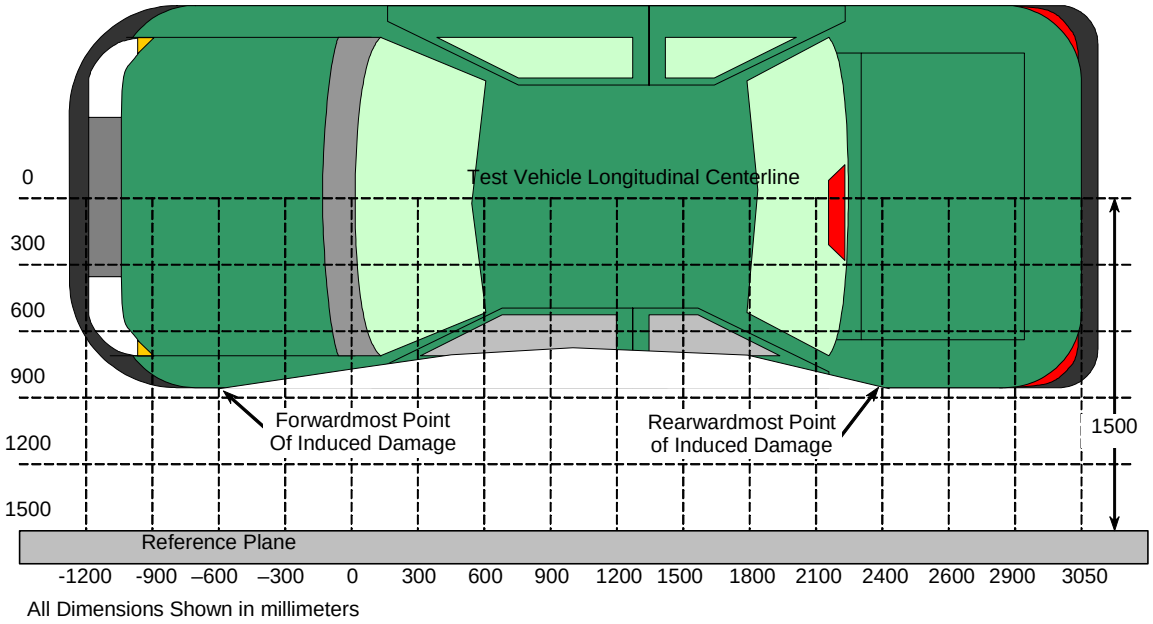
NOTE: All dimensions are in millimeters with a tolerance of ±3 mm

			DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT																											
LEVEL	HEIGHT (mm)		-900	-750	-600	-450	-300	-150	0	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000
LEVEL 1 SIDE SILL	478	PRE	--	--	--	--	--	--	--	195	191	189	186	185	184	182	181	181	184	176	175	--	--	--	--	--	--	--	--
		POST	--	--	--	--	--	--	--	244	267	283	302	316	323	336	345	352	350	348	354	--	--	--	--	--	--	--	--
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	49	76	94	116	131	139	154	164	171	166	172	179	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LEVEL 2 H POINT	821	PRE	--	--	--	--	--	--	83	168	165	162	159	168	158	156	156	156	158	161	121	--	--	--	--	--	--	67	99
		POST	--	--	--	--	--	--	112	214	247	262	277	287	298	310	294	300	297	291	223	--	--	--	--	--	--	71	102
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	29	46	82	100	118	119	140	154	138	144	139	130	102	N/A	N/A	N/A	N/A	N/A	N/A	4	3
LEVEL 3 MID DOOR	906	PRE	88	80	--	--	--	72	89	167	164	161	158	156	154	152	153	154	157	157	159	64	--	--	--	--	68	75	177
		POST	81	76	--	--	--	93	108	208	217	225	237	246	255	261	271	266	260	255	243	106	--	--	--	--	70	66	174
		CRUSH	-7	-4	N/A	N/A	N/A	21	19	41	53	64	79	90	101	109	118	112	103	98	84	42	N/A	N/A	N/A	N/A	2	-9	-3
LEVEL 4 WINDOW SILL	1224	PRE	--	--	--	383	262	185	175	189	185	176	172	169	167	166	166	165	166	166	151	171	173	174	177	177	178	181	191
		POST	--	--	--	394	274	197	192	207	204	204	203	210	215	222	231	227	211	200	171	178	173	175	193	191	191	186	195
		CRUSH	N/A	N/A	N/A	11	12	12	17	18	19	28	31	41	48	56	65	62	45	34	20	7	0	1	16	14	13	5	4
LEVEL 5 WINDOW TOP	1692	PRE	--	--	--	--	--	--	--	--	--	312	297	291	288	285	283	282	281	281	281	282	282	282	285	287	288	290	314
		POST	--	--	--	--	--	--	--	--	--	291	276	271	267	267	266	265	259	250	243	238	237	291	291	290	295	290	314
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-21	-21	-20	-21	-18	-17	-17	-22	-31	-38	-44	-45	9	6	3	7	0	0

DATA SHEET NO. 11

VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005



TOP VIEW

DAMAGE PROFILE DISTANCES

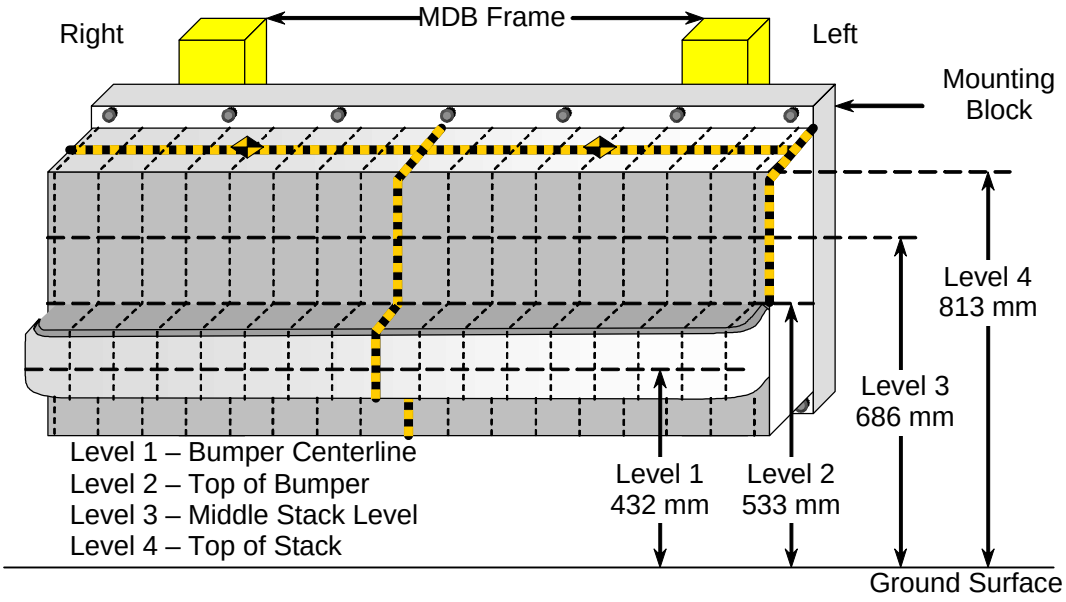
DPD	Distance from Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max Static Crush (mm)
1 (LR)	2100	4	173	173	0
2	1640	1	177	348	171
3	1180	1	181	344	163
4	720	1	185	313	128
5	260	2	166	238	72
6 (LF)	-200	4	211	223	12

Reference plane is parallel to test vehicle longitudinal centerline.
Given dimensions = Reference plane to vehicle body.

DATA SHEET NO. 12

DEFORMABLE BARRIER HONEYCOMB FACE STATIC CRUSH

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005



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

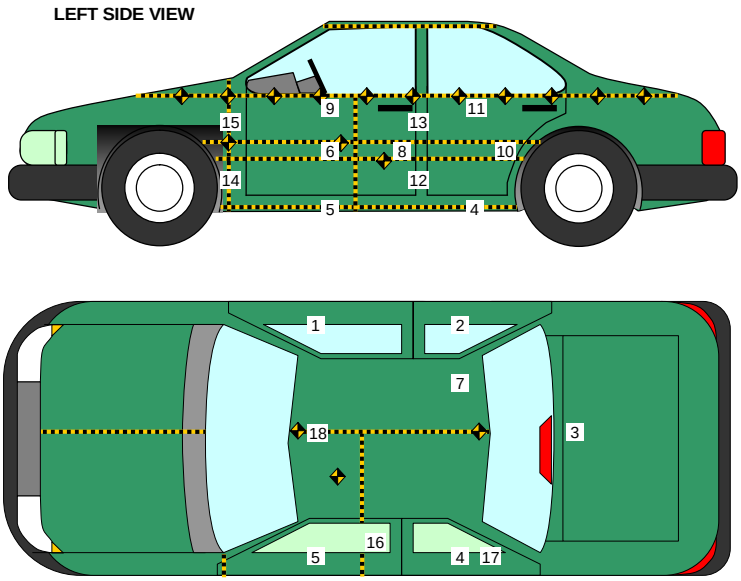
			DISTANCE RIGHT OF CENTER (mm)									DISTANCE LEFT OF CENTER (mm)							
LEVEL	HEIGHT AT CL (mm)*		800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800
LEVEL 4		PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
TOP	813	POST	810	776	762	747	749	758	714	691	692	701	705	715	723	735	748	771	805
STACK		CRUSH	191	157	143	128	130	139	95	72	73	82	86	96	104	116	129	152	186
LEVEL 3		PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
MID	686	POST	800	742	727	714	705	717	692	694	685	684	685	689	694	701	712	737	777
LEVEL		CRUSH	181	123	108	95	86	98	73	75	66	65	66	70	75	82	93	118	158
LEVEL 2		PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
TOP	533	POST	767	745	742	745	749	750	754	754	755	757	762	763	766	766	767	776	785
BUMPER		CRUSH	148	126	123	126	130	131	135	135	136	138	143	144	147	147	148	157	166
LEVEL 1		PRE	535	519	518	518	518	518	518	518	518	518	518	518	518	518	518	519	535
MID	432	POST	668	642	625	620	626	630	626	624	627	631	630	633	629	640	649	663	686
BUMPER		CRUSH	133	123	107	102	108	112	108	106	109	113	112	115	111	122	131	144	151

*Heights measured above ground level.

DATA SHEET NO. 13

VEHICLE ACCELEROMETER LOCATIONS

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005



Loc. No.	Accelerometer Location	Measurements (mm)		
		X	Y	Z
1	Right Sill at Front Seat	2935	666	-538
2	Right Sill at Rear Seat	2009	667	-565
3	Rear Floorpan Above Axle	1245	-1	-802
4	Left Sill at Rear Door	1886	-680	-552
5	Left Sill at Front Door	2852	-686	-539
6	Left Front Door C/L**	-	-	-
7	Rear Occupant Compartment	2039	407	-534
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-Post	2203	-637	-635
13	Left Middle B-Post	2204	-661	-917
14	Left Lower A-Post	3312	-662	-716
15	Left Middle A-Post	3246	-651	-1317
16	Front Seat Track	2376	-513	-561
17	Rear Seat Track or Structure	1270	-536	-847
18	Vehicle CG	2614	31	-732

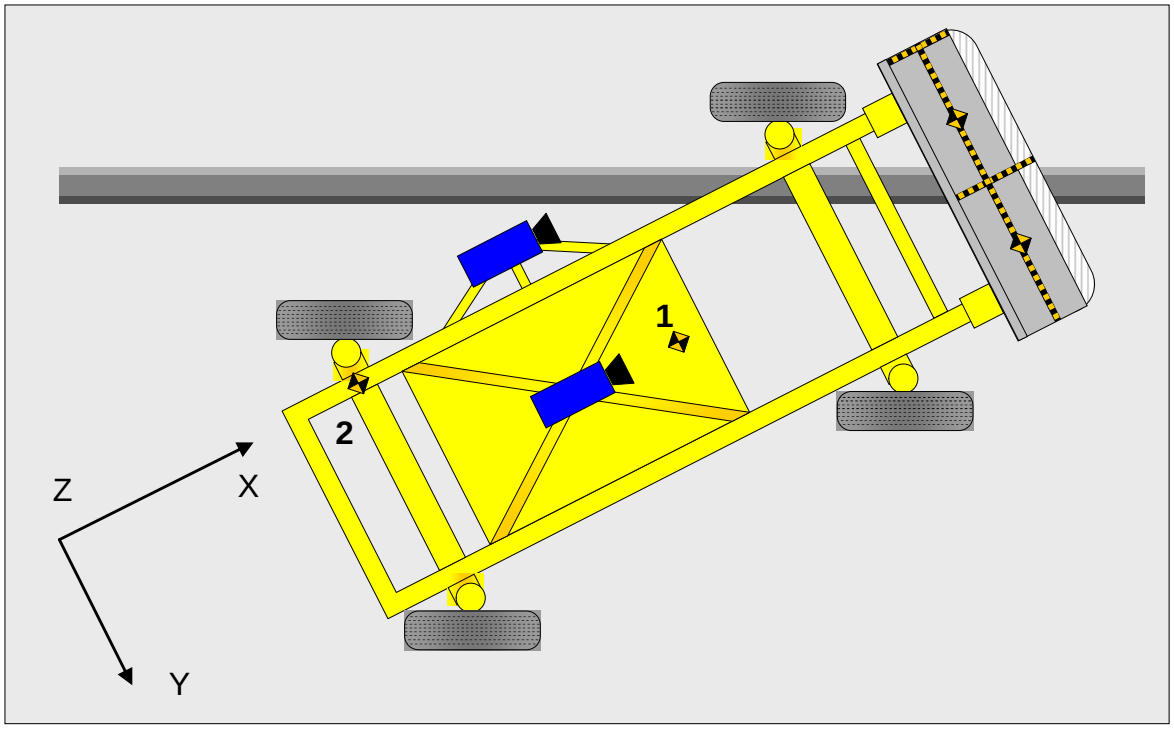
Reference Points X - Test Vehicle Rear Bumper (+ forward)
Y - Test Vehicle Centerline (+ to right)
Z - Ground Plane (+ down)

** Accelerometer was not requested by the COTR.

DATA SHEET NO. 14

MDB ACCELEROMETER LOCATIONS

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005



Loc. No.	Accelerometer Location	Measurements (mm)		
		X	Y	Z
1	MDB CG	1859	0	-330
2	MDB Rear	386	-660	-660

Reference Points
X - MDB Rear Bumper (+ forward)
Y - MDB Centerline (+ to right)
Z - Ground Plane (+ down)

DATA SHEET NO. 15

VEHICLE STRUCTURAL MEASUREMENTS

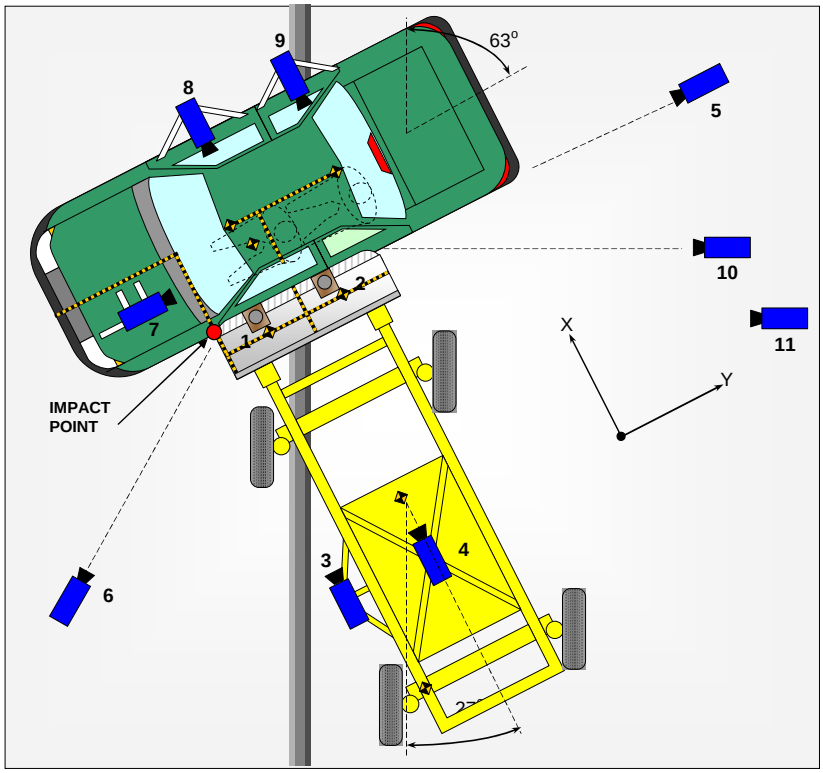
Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005

	Elements	Pre-Test (mm)
1	Total Length	4548
2	Total Width	1919
3	Bumper Top Height	605
4	Bumper Bottom Height	428
5	Longitudinal Member Top Height	578
6	Distance between Longitudinal Members	667
7	Longitudinal Member Width	70
8	Engine Top Height	1095
9	Engine Bottom Height	495
10	Engine and gearbox width	620
11	Front bumper-engine distance	500
12	Front shock absorber fixing height	716
13	Bonnet leading edge height	1102
14	Front shock absorber fixing width	854
15	Front bumper – front axle distance	835
16	Front axle – a pillar distance	591
17	A-pillar – B-pillar distance	1100
18	B-Pillar – rear axle distance	1140
19	B-pillar – C-pillar distance	630
20	Roof sill bottom height	1678
21	Roof sill top height	1754
22	Floor sill bottom height	473
23	Floor sill top height	571

DATA SHEET NO. 16

HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005



No.	Camera View	Location (mm)			Angle (deg)	Lens (mm)	Film Speed (fps)
		X	Y	Z			
1	Overhead Overall	117	835	-4880	-90	8	500
2	Overhead Close-up	240	878	-4880	-90	28	1000
3	MDB Onboard, Impact Point Close-up	-1470	0	-847	0	13	500
4	MDB Onboard, Centerline of Impact	-1140	838	-1587	-17	7.5	500
5	Right Side, Ground Level, Overall	60	11205	-1080	-2	50	1000
6	Left Side, Ground Level, Overall	-2300	-1935	-1020	-5	28	1000
7	Vehicle Onboard Front SID/HIII, Front	582	-358	-1555	-10	25	1000
8	Vehicle Onboard Front SID/HIII, Side	1640	797	-1380	-8	12.5	1000
9	Vehicle Onboard Rear SID/HIII, Side	1660	1712	-1398	-9	12.5	1000
10	Secondary Impact Point	-4240	-3580	-1038	-2	25	500
11	Real Time Coverage						30

Reference Points X - Impact Line
Y - MDB Left Edge Impact Point
Z - Ground Plane

DATA SHEET NO. 17
SUMMARY OF FMVSS 301 DATA

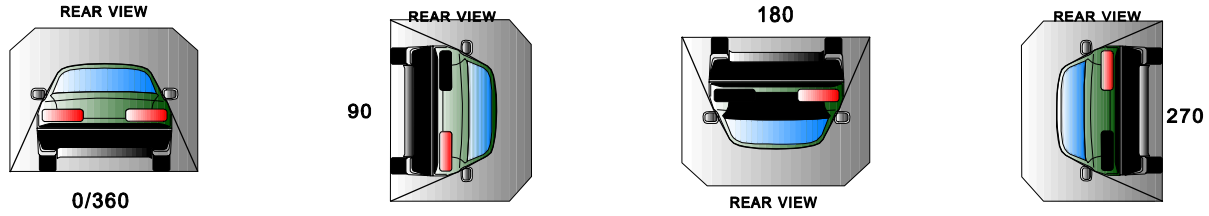
Test Vehicle:	2006 Hummer H3	NHTSA No.	M60115
Test Program:	NCAP Side Impact	Test Date:	December 06, 2005

FUEL SYSTEM INTEGRITY POST IMPACT DATA

Time Interval	FMVSS 301 Maximum Allowable Spillage	Spillage (g)
Impact Until Motion Ceases	28 g	0
First Five Minutes Following Impact	142 g	0
Next 25 Minutes	28 g / 1 minute	0

Spillage Location(s)	None

STATIC ROLLOVER DATA



Rollover Stage	Rotation Time (spec. 1 -3 min)				FMVSS 301 Hold Time		Total Time				Next Whole Minute Interval	
0º - 90º	1	minutes	7	seconds	5	minutes	6	minutes	7	seconds	7	minutes
90º - 180º	1	minutes	10	seconds	5	minutes	6	minutes	10	seconds	7	minutes
180º-270º	1	minutes	5	seconds	5	minutes	6	minutes	5	seconds	7	minutes
270º-360º	1	minutes	11	seconds	5	minutes	6	minutes	11	seconds	7	minutes

Rollover Stage	Spillage (g)			
	First 5 min. from onset of rotation	6th min.	7th min.	8th min. (if required)
0º - 90º	0	0	0	0
90º - 180º	0	0	0	0
180º-270º	0	0	0	0
270º-360º	0	0	0	0
FMVSS 301 Maximum Allowable (for each 90º stage)	142	28	28	28

Rollover Stage	Spillage Location(s)
0º - 90º	None
90º - 180º	None
180º-270º	None
270º-360º	None

APPENDIX A

PHOTOGRAPHS

TABLE OF PHOTOGRAPHS

TABLE OF PHOTOGRAPHS (continued)

Figure A-1: As Received Left Front ¾ View

Figure A-2: As Received Right Rear ¾ View

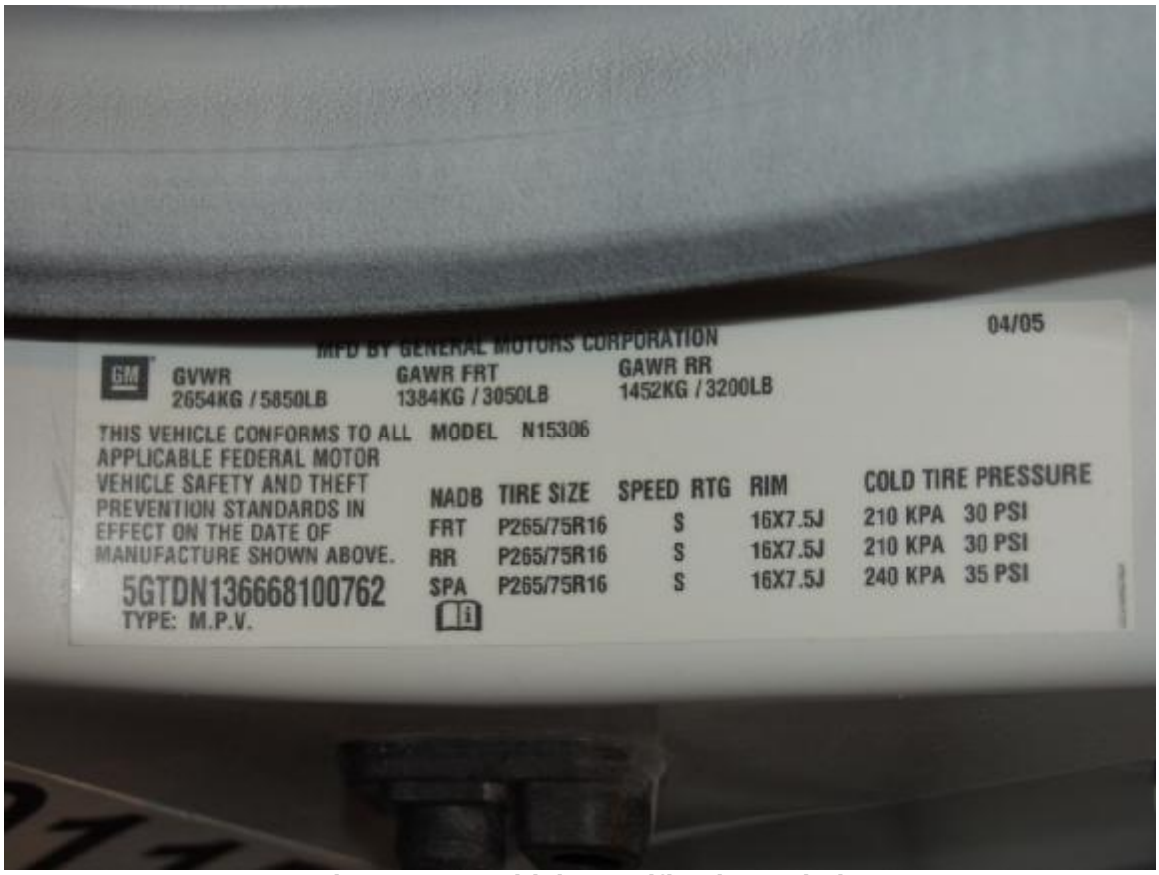


Figure A-3: Vehicle Certification Label

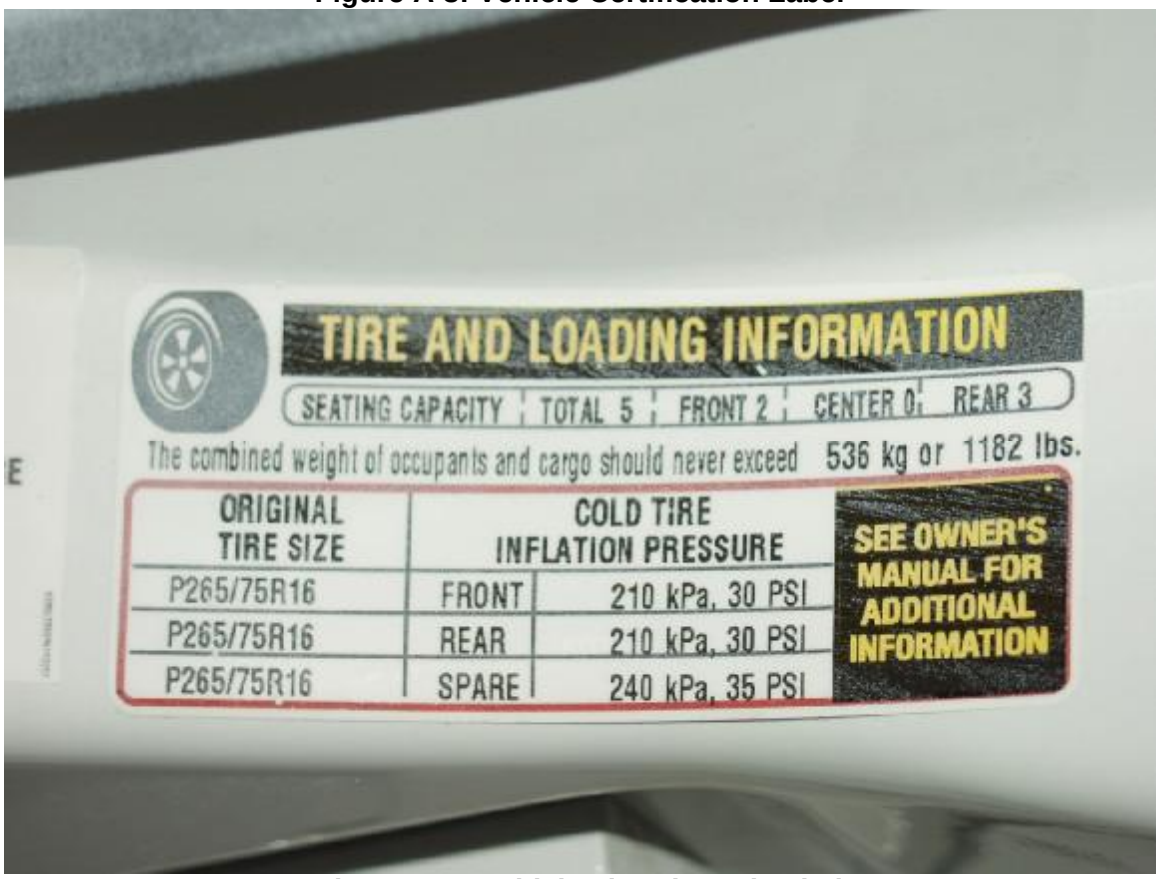


Figure A-4: Vehicle Tire Placard Label

Figure A-5: Pre-Test Front View

Figure A-6: Post-Test Front View

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

Figure A-8: Post-Test Left Front ¾ View

Figure A-9: Pre-Test Left Side View

Figure A-10: Post-Test Left Side View

Figure A-11: Pre-Test Left Rear ¾ View

Figure A-12: Post-Test Left Rear ¾ View

Figure A-13: Pre-Test Rear View

Figure A-14: Post-Test Rear View

Figure A-15: Pre-Test Right Rear ¾ View

Figure A-16: Post-Test Right Rear ¾ View

Figure A-17: Pre-Test Right Side View

Figure A-18: Post-Test Right Side View

Figure A-19: Pre-Test Right Front ¾ View

Figure A-20: Post-Test Right Front ¾ View

Figure A-21: Pre-Test Frontal View of MDB Impactor Face

Figure A-22: Post-Test Frontal View of MDB Impactor Face

Figure A-23:Pre-Test Left Side View of MDB Impactor Face

Figure A-24: Post-Test Left Side View of MDB Impactor Face

Figure A-25: Pre-Test Right Side View of MDB Impactor Face

Figure A-26: Post-Test Right Side View of MDB Impactor Face

Figure A-27: Pre-Test Top View of MDB Impactor Face

Figure A-28: Post-Test Top View of MDB Impactor Face

Figure A-29: Pre-Test Left Side View of Aligned MDB and Vehicle

Figure A-30: Pre-Test Right Side View of Aligned MDB and Vehicle

Figure A-31: Pre-Test Overhead View of Aligned MDB and Vehicle

Figure A-32: Post-Test Overhead View of MDB and Vehicle

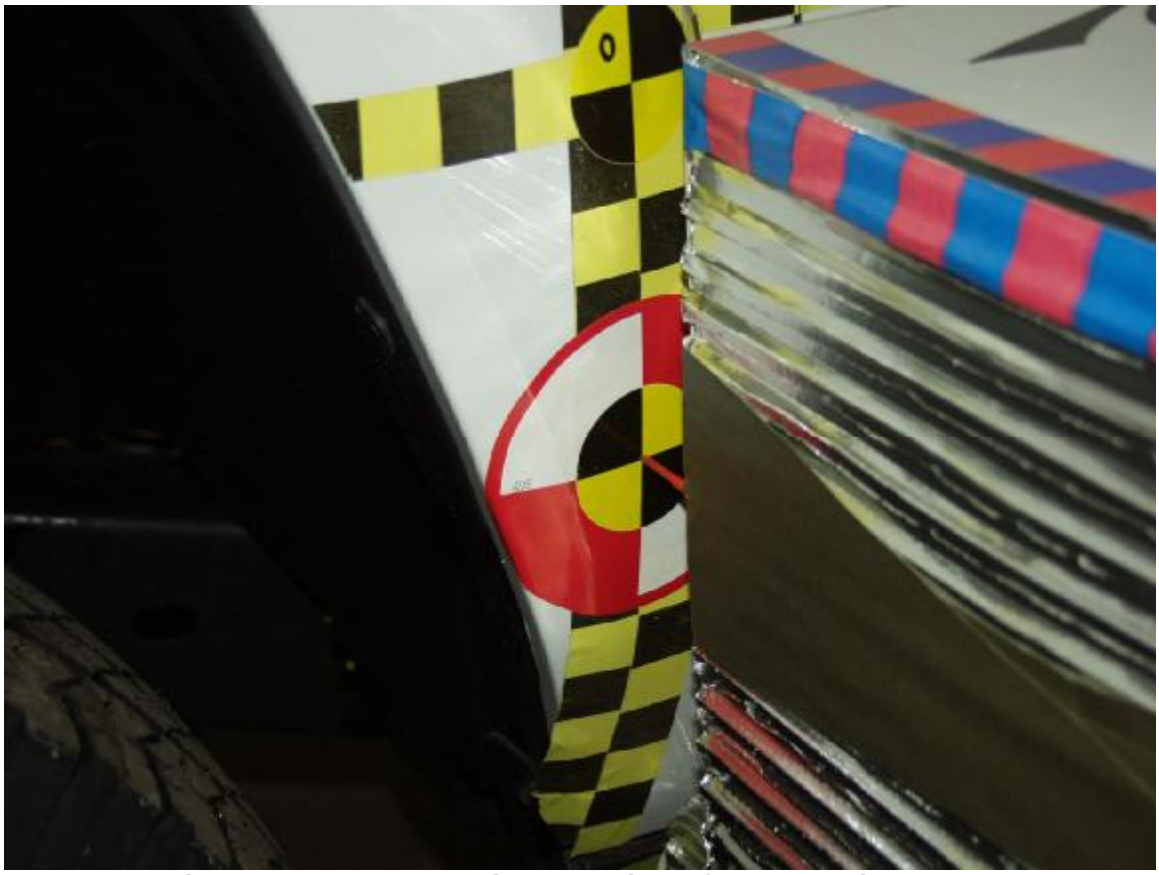


Figure A-33: Pre-Test Close-Up View of Impact Point Target

Figure A-34: Post-Test Close-Up View of Impact Point Target

Figure A-35: Pre-Test Right Occupant Compartment View of Driver

Figure A-36: Post-Test Right Occupant Compartment View of Driver

Figure A-37: Pre-Test Right Occupant Compartment View of Passenger

Figure A-38: Post-Test Right Occupant Compartment View of Passenger

Figure A-39: Pre-Test Left Occupant Compartment View of Driver

Figure A-40: Post-Test Left Occupant Compartment View of Driver

Figure A-41: Pre-Test Left Occupant Compartment View of Passenger

Figure A-42: Post-Test Left Occupant Compartment View of Passenger

Figure A-43: Pre-Test Left Front Interior Trim

Figure A-44: Post-Test Left Front Interior Trim

Figure A-45: Pre-Test Left Rear Interior Trim

Figure A-46: Post-Test Left Rear Interior Trim

Figure A-47: Pre-Test Left Front ¾ View of Left Side Doors

Figure A-48: Post-Test Left Front ¾ View of Left Side Doors

Figure A-49: Pre-Test Left Rear ¾ View of Left Side Doors

Figure A-50: Post-Test Left Rear ¾ View of Left Side Doors

Figure A-51: Rollover 90 Degrees

Figure A-52: Rollover 180 Degrees

Figure A-53: Rollover 270 Degrees

Figure A-54: Rollover 360 Degrees

Figure A-55: Impact Photo

APPENDIX B

SID/HIII, VEHICLE AND MDB RESPONSE DATA

(SAE sign convention)

DATA CHANNEL FILTER CLASS SUMMARY

Data Type	SAE Filter Class
Dummy Head Accelerations	CFC 1000
Rib Accelerations	FIR 100
Spine Accelerations	FIR 100
Pelvis Accelerations	FIR 100

DATA CHANNEL TITLE KEY

Prefix	Suffix
V1 = Vehicle 1 (Moving Barrier)	Ax = Acceleration, X-direction
V2 = Vehicle 2 (Test Vehicle)	Ay = Acceleration, Y-direction
P1 = Left Front Seating Position (Driver)	Az = Acceleration, Z-direction
P4 = Left Second Row Seating Position (Passenger)	Fx = Force, X-direction
A1-A18 = Accelerometer Location Number	Fy = Force, Y-direction
	Fz = Force, Z-direction
	Mx = Moment about X
	My = Moment about Y
	Mz = Moment about Z

TABLE OF DATA PLOTS

The following dummy, vehicle and load cell response data can be found in the research and development section of the NHTSA website at: www.nhtsa.dot.gov

V2P1 Head Ax
V2P1 Head Ay
V2P1 Head Az
V2P1 Upper Neck Fx
V2P1 Upper Neck Fy
V2P1 Upper Neck Fz
V2P1 Upper Neck Mx
V2P1 Upper Neck My
V2P1 Upper Neck Mz
V2P1 Upper Rib Ay
V2P1 Upper Rib Redundant Ay
V2P1 Lower Rib Ay
V2P1 Lower Rib Redundant Ay
V2P1 Lower Spine Ay
V2P1 Lower Spine Redundant Ay
V2P1 Pelvic Ay
V2P1 Pelvic Redundant Ay
V2P4 Head Ax
V2P4 Head Ay
V2P4 Head Az
V2P4 Upper Neck Fx
V2P4 Upper Neck Fy
V2P4 Upper Neck Fz
V2P4 Upper Neck Mx
V2P4 Upper Neck My
V2P4 Upper Neck Mz
V2P4 Upper Rib Ay
V2P4 Upper Rib Redundant Ay
V2P4 Lower Rib Ay
V2P4 Lower Rib Redundant Ay
V2P4 Lower Spine Ay
V2P4 Lower Spine Redundant Ay
V2P4 Pelvic Ay
V2P4 Pelvic Redundant Ay

V2A1 Right Front Sill Ax
V2A1 Right Front Sill Ay
V2A1 Right Front Sill Az
V2A2 Right Rear Sill Ax
V2A2 Right Rear Sill Ay
V2A2 Right Rear Sill Az
V2A3 Rear Floorpan Ax
V2A3 Rear Floorpan Ay
V2A3 Rear Floorplan Az
V2A4 Left Rear Sill Ay
V2A5 Left Front Sill Ay
V2A7 Right Rear Compartment Ay
V2A12 Left Lower B Post Ay
V2A13 Left Mid B Post Ay
V2A14 Left Lower A Post Ay
V2A15 Left Mid A Post Ay
V2A16 Front Seat Track Ay
V2A17 Rear Seat Track Ay
V2A18 Target CG Ax
V2A18 Target CG Ay
V2A18 Target CG Az
V1 Moving Barrier CG Ax
V1 Moving Barrier CG Ay
V1 Moving Barrier CG Az
V1 Moving Barrier Left Rail Ax
V1 Moving Barrier Left Rail Ay

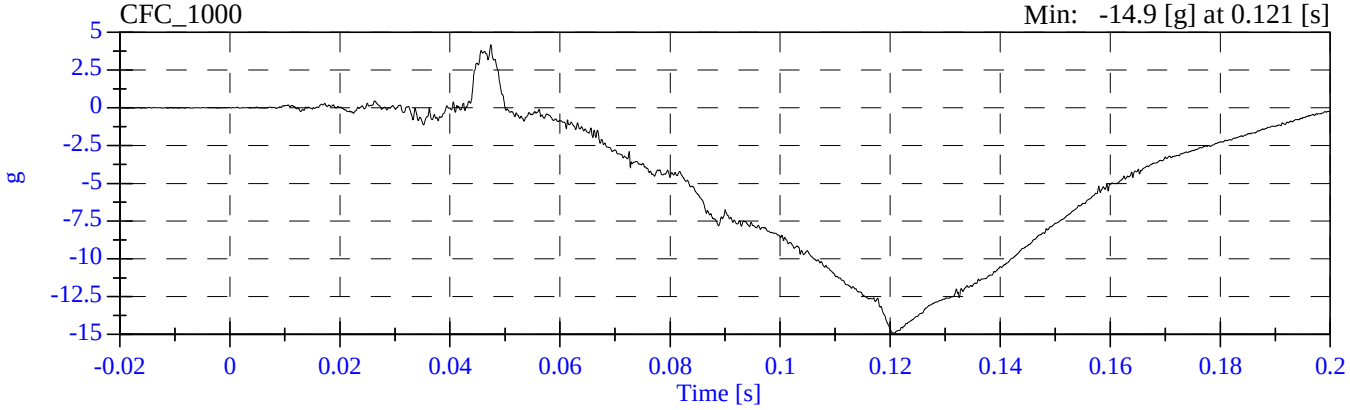
TEST NOTES

The following data anomalies occurred:

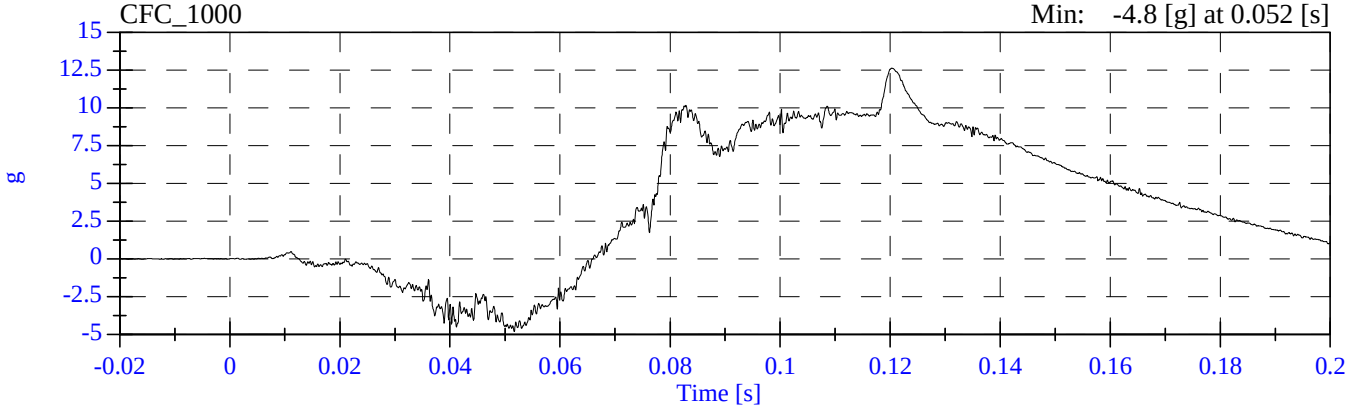
V2A14 Left Lower A Post Y - Transducer dismounted at 24 ms.

2006 SNCAP Test 3 - 2006 Hummer H3
M60115 - December 06, 2005

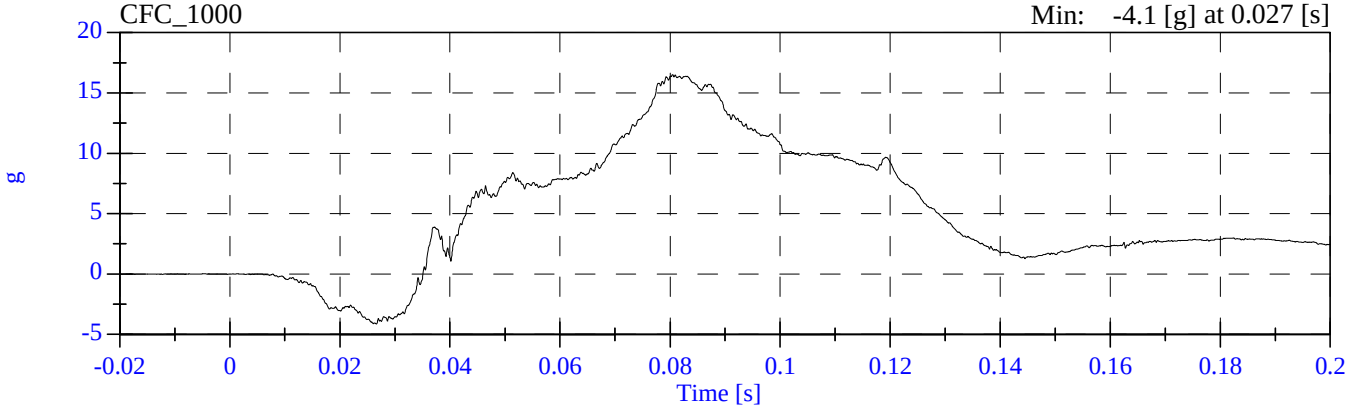
V1P1 Head x
CFC_1000
Max: 4.2 [g] at 0.047 [s]
Min: -14.9 [g] at 0.121 [s]



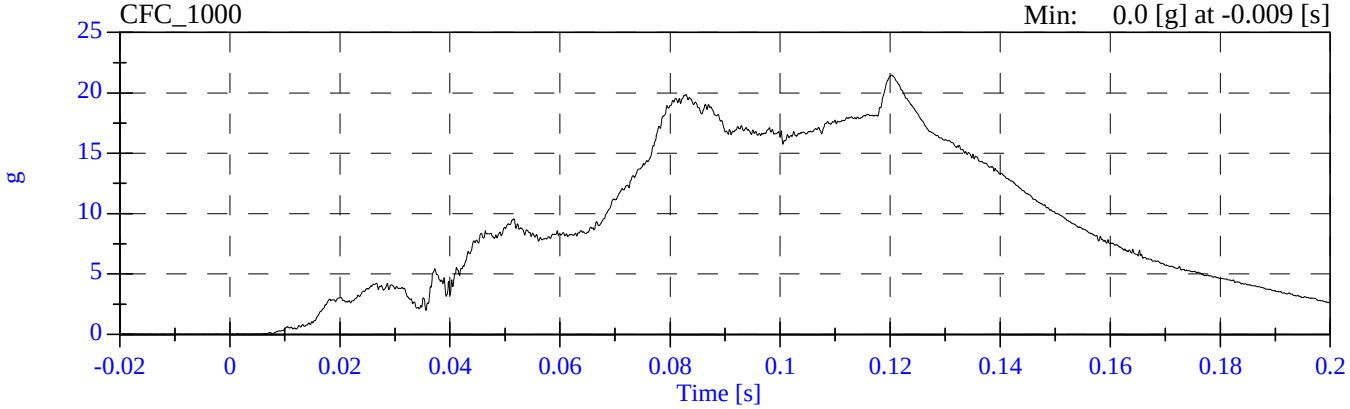
V1P1 Head y
CFC_1000
Max: 12.6 [g] at 0.120 [s]
Min: -4.8 [g] at 0.052 [s]



V1P1 Head z
CFC_1000
Max: 16.5 [g] at 0.080 [s]
Min: -4.1 [g] at 0.027 [s]

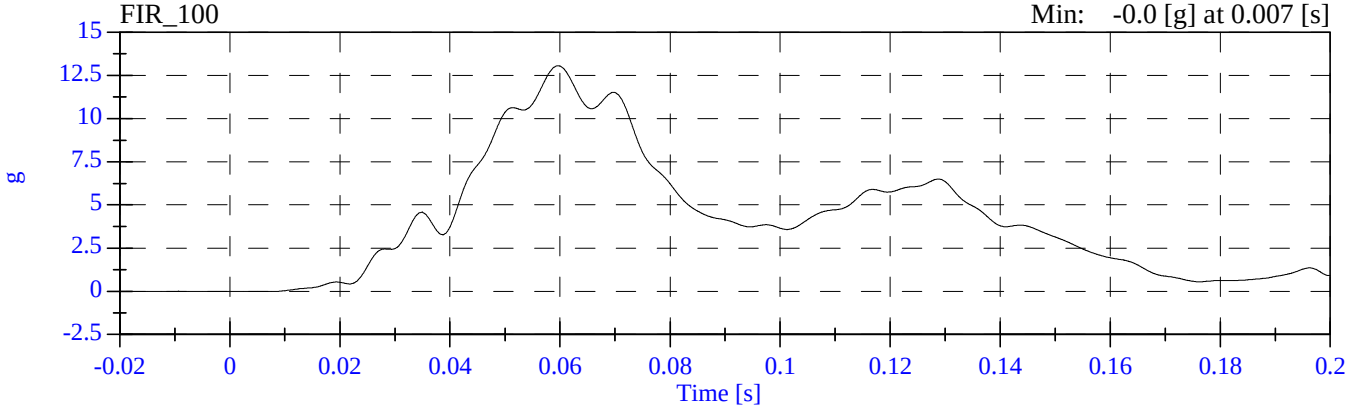


V1P1 Head Resultant
CFC_1000
Max: 21.5 [g] at 0.120 [s]
Min: 0.0 [g] at -0.009 [s]

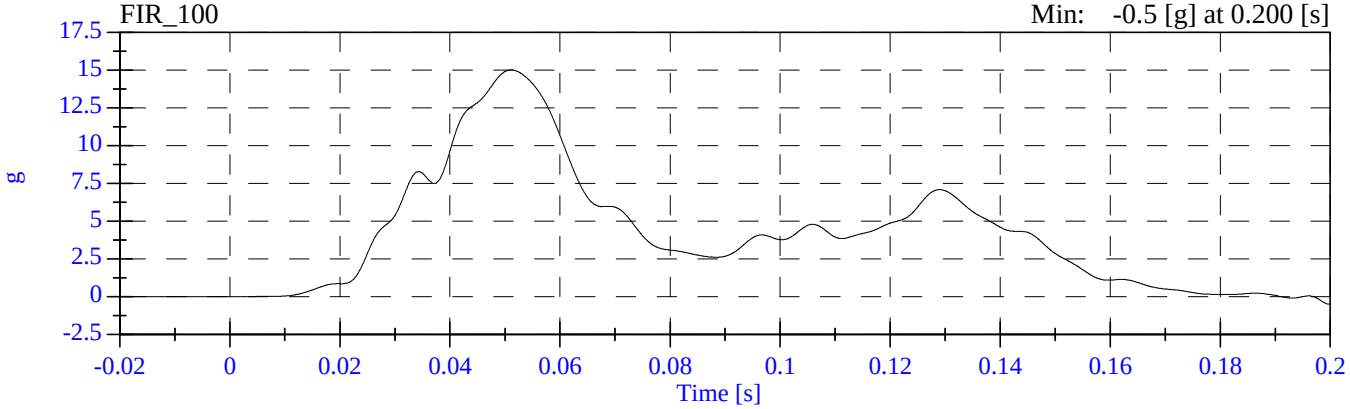


2006 SNCAP Test 3 - 2006 Hummer H3
M60115 - December 06, 2005

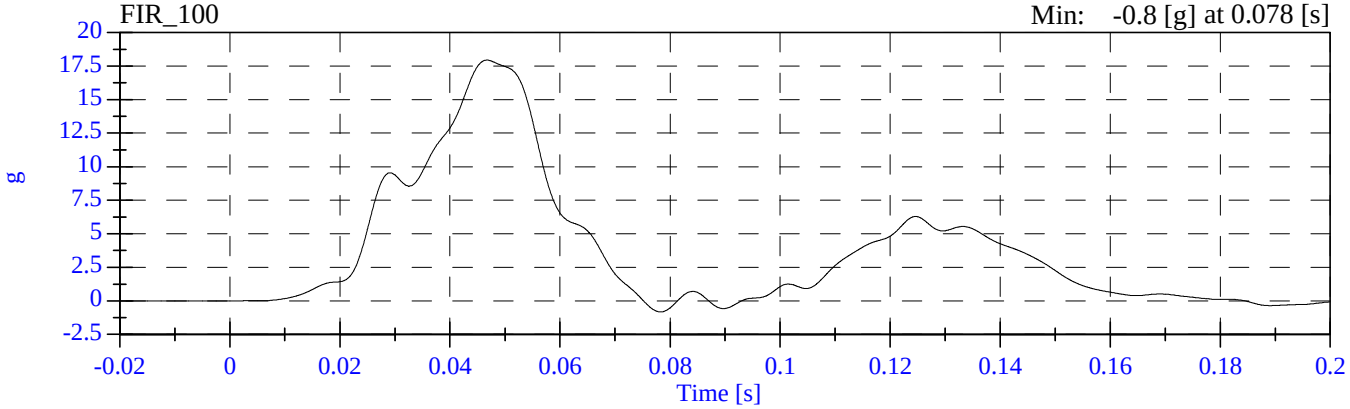
V1P1 Upper Rib y
FIR_100
Max: 13.1 [g] at 0.059 [s]
Min: -0.0 [g] at 0.007 [s]



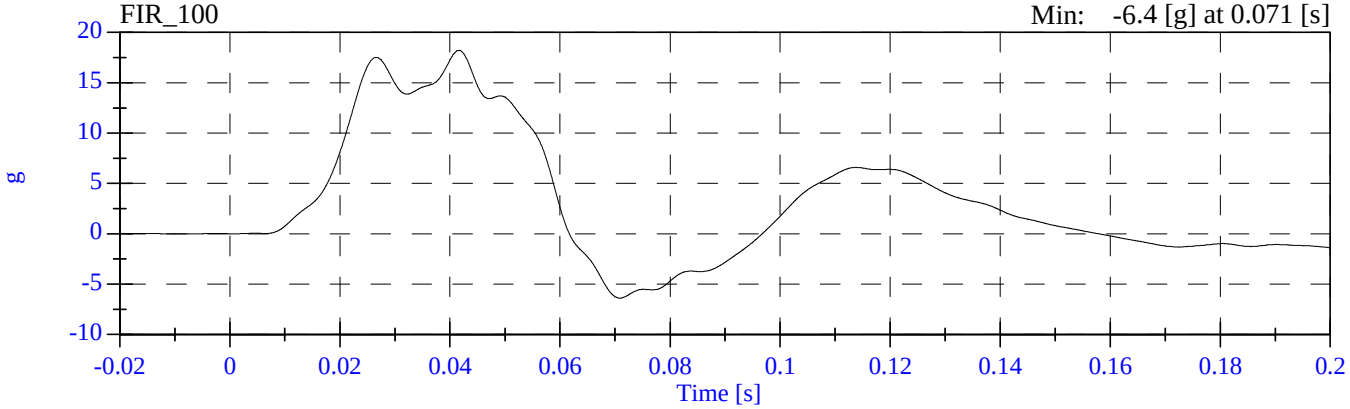
V1P1 Lower Rib y
FIR_100
Max: 15.0 [g] at 0.051 [s]
Min: -0.5 [g] at 0.200 [s]



V1P1 Lower Spine y
FIR_100
Max: 17.9 [g] at 0.047 [s]
Min: -0.8 [g] at 0.078 [s]

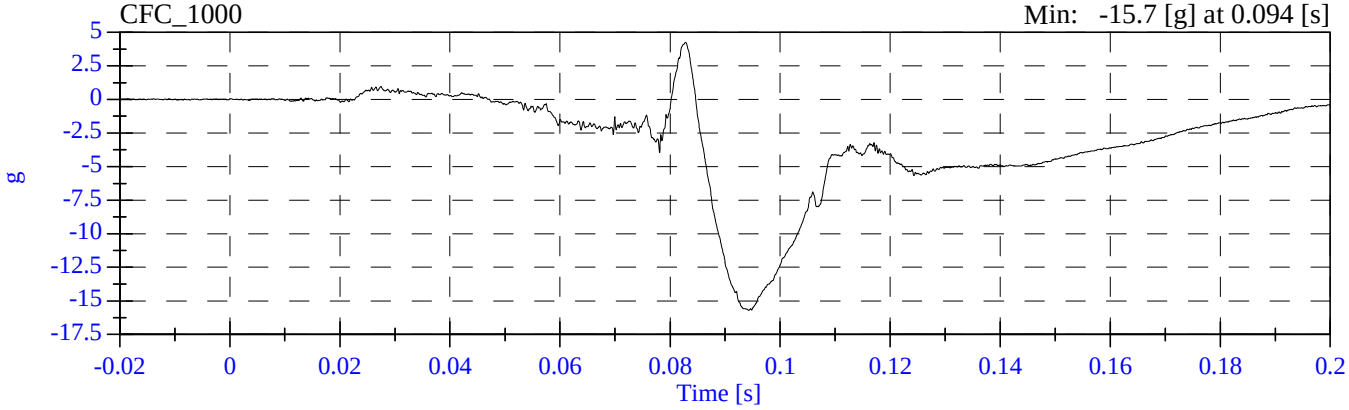


V1P1 Pelvic y
FIR_100
Max: 18.2 [g] at 0.042 [s]
Min: -6.4 [g] at 0.071 [s]

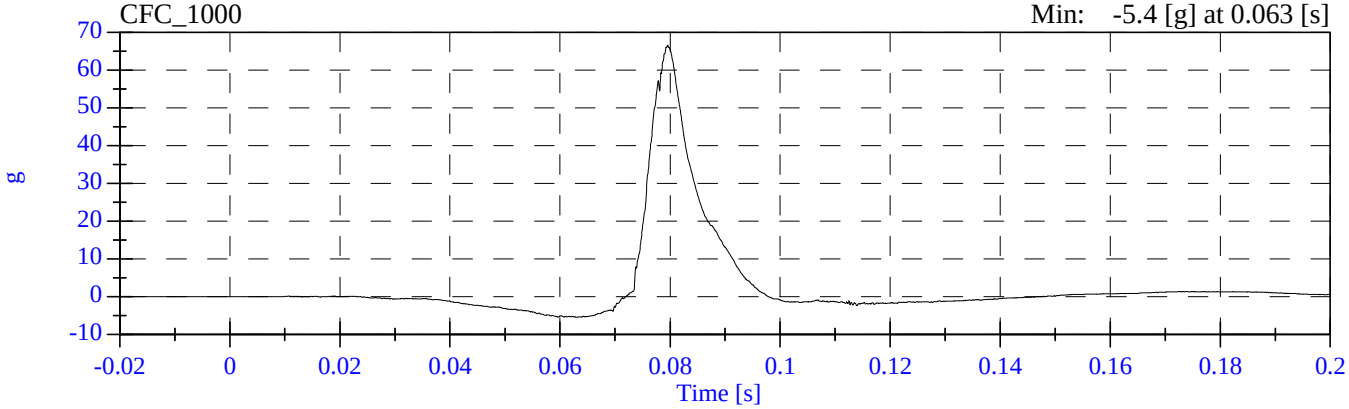


2006 SNCAP Test 3 - 2006 Hummer H3
M60115 - December 06, 2005

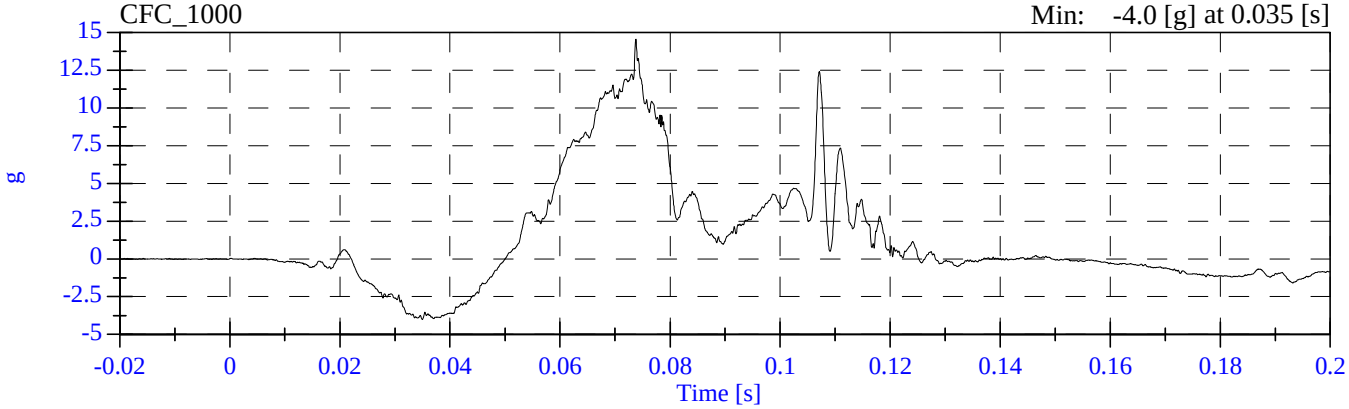
V1P4 Head x
CFC_1000
Max: 4.3 [g] at 0.083 [s]
Min: -15.7 [g] at 0.094 [s]



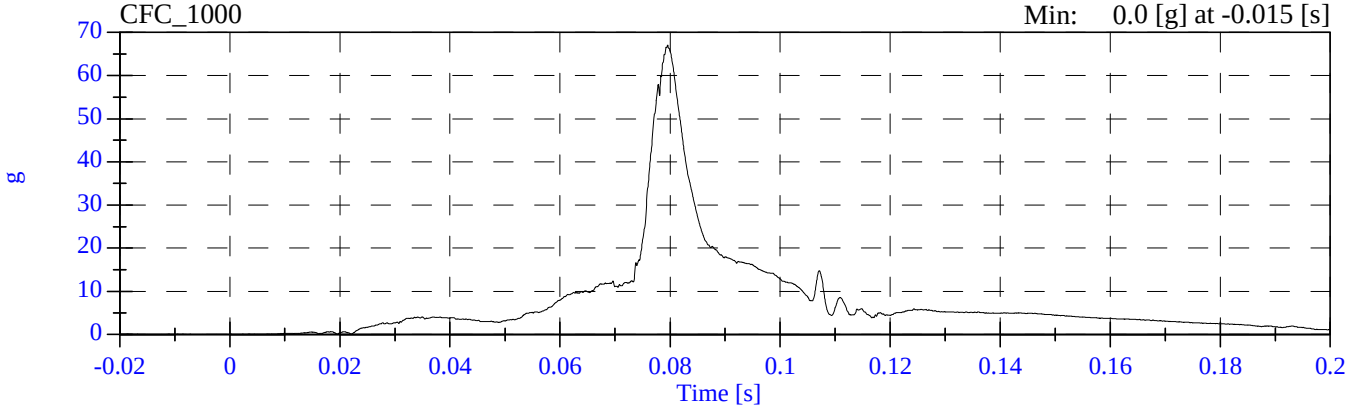
V1P4 Head y
CFC_1000
Max: 66.7 [g] at 0.080 [s]
Min: -5.4 [g] at 0.063 [s]



V1P4 Head z
CFC_1000
Max: 14.5 [g] at 0.074 [s]
Min: -4.0 [g] at 0.035 [s]

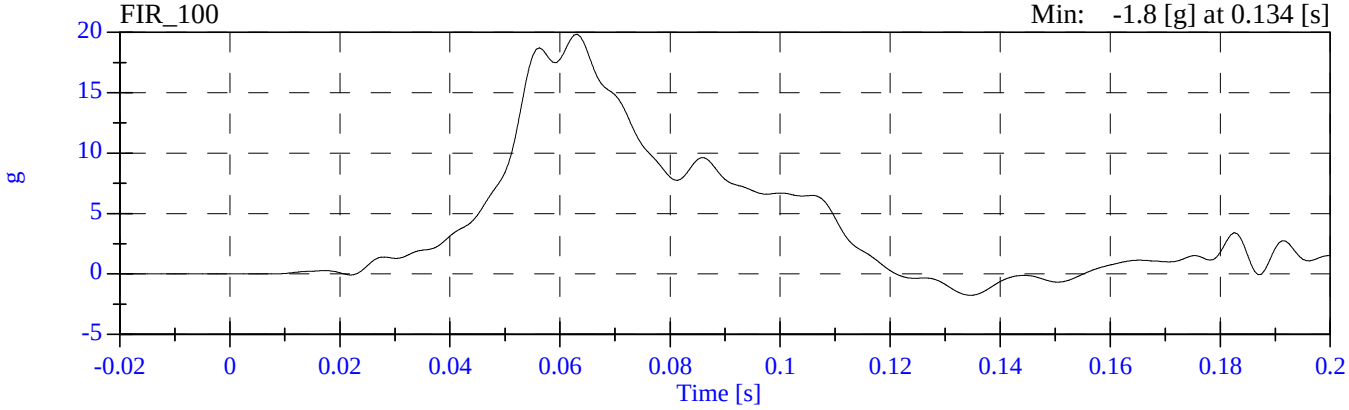


V1P4 Head Resultant
CFC_1000
Max: 67.1 [g] at 0.080 [s]
Min: 0.0 [g] at -0.015 [s]

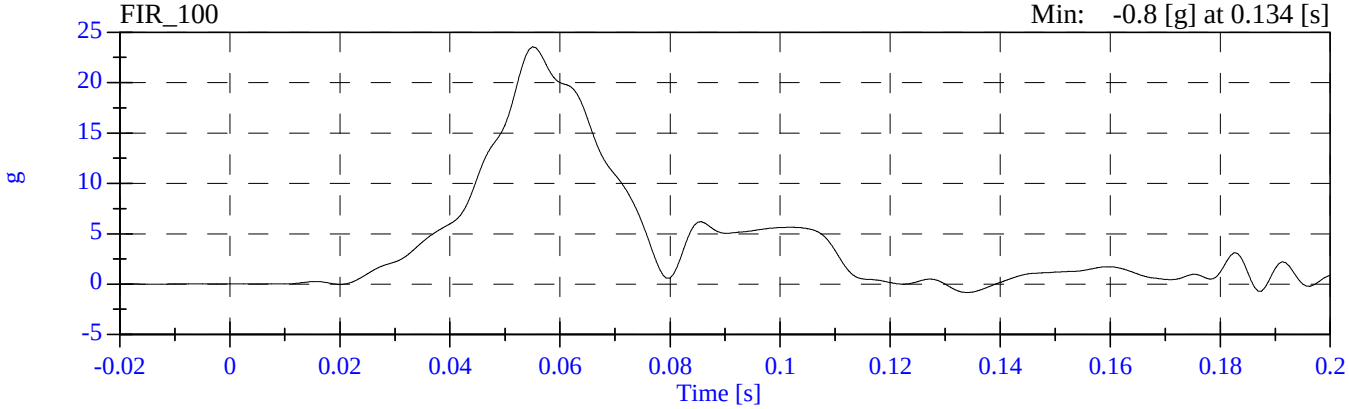


2006 SNCAP Test 3 - 2006 Hummer H3
M60115 - December 06, 2005

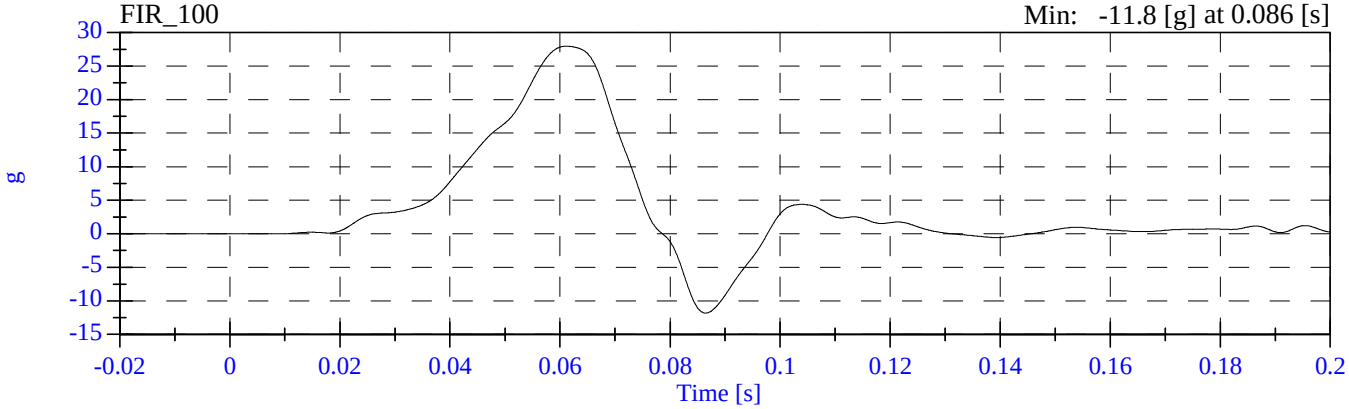
V1P4 Upper Rib y
FIR_100
Max: 19.8 [g] at 0.063 [s]
Min: -1.8 [g] at 0.134 [s]



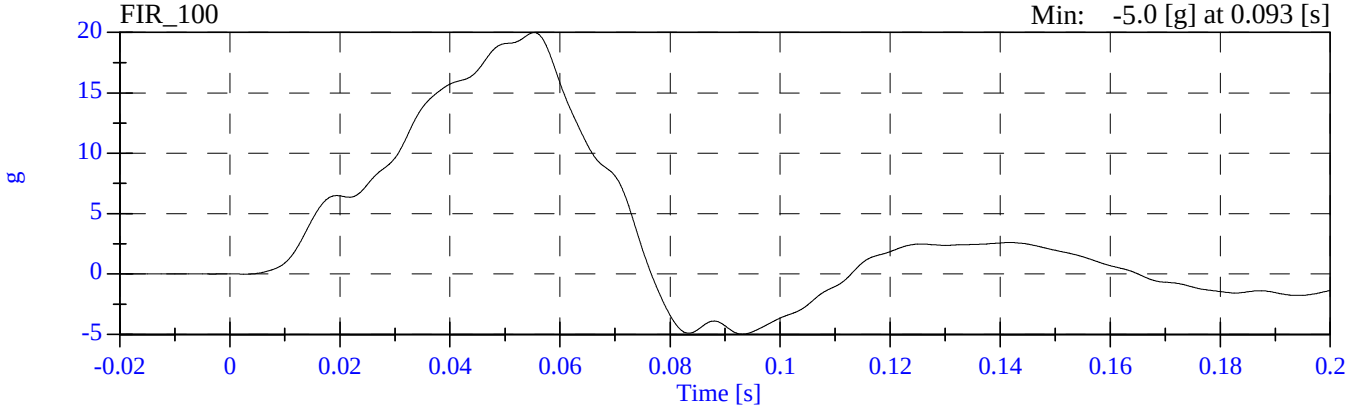
V1P4 Lower Rib y
FIR_100
Max: 23.6 [g] at 0.055 [s]
Min: -0.8 [g] at 0.134 [s]



V1P4 Lower Spine y
FIR_100
Max: 28.0 [g] at 0.061 [s]
Min: -11.8 [g] at 0.086 [s]



V1P4 Pelvic y
FIR_100
Max: 20.0 [g] at 0.055 [s]
Min: -5.0 [g] at 0.093 [s]



APPENDIX C

DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

SUMMARY
SID H3 PRE & POST TEST CALIBRATION

CONFIGURED FOR LEFT SIDE IMPACT

Date: 09/21/2005; 09/21/2005 Sequential Test Number: 1.4; 1.4
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	SID H3 NO.: 905		SID H3 NO.: 906	
		PRE TEST	POST TEST	PRE TEST	POST TEST
SH- Seated Height (mm)	889 - 909	907	904	904	907
RH- Rib Height (mm)	501 - 521	518	516	516	516
HP- Hip Pivot Height (mm)	99 ref.	99	99	99	99
RD- Rib from Back Line (mm)	229 - 241	241	241	241	241
KV- Knee Pivot from Back Line (mm)	511 - 526	521	521	521	518
SW- Knee Pivot to Floor (mm)	490 - 505	493	493	493	493
HW- Hip Width (mm)	356 - 391	366	368	368	381
THORAX IMPACTS					
TEMPERATURE (• C)	18.9 - 25.5	21.1	21.1	21.1	21.1
RELATIVE. HUMIDITY (%)	10 -70	33.0	35.0	33.0	35.0
PROBE SPEED (m/s)	4.27 - 4.33	4.33	4.30	4.28	4.32
UPPER RIB (g's)	37 - 46	45.75	42.83	41.00	45.02
LOWER RIB (g's)	37 - 46	44.78	42.23	39.29	45.40
LOWER SPINE (g's)	15 -22	21.93	21.52	18.55	21.66
PELVIS IMPACT					
TEMPERATURE (• C)	18.9 - 25.5	21.1	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	33.0	35.0	33.0	35.0
PROBE SPEED (m/s)	4.27 - 4.33	4.28	4.33	4.29	4.31
PELVIS (g's)	40 -60	41.04	45.66	45.01	48.47

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 905

CONFIGURED FOR LEFT SIDE IMPACT

CALIBRATION TEST RESULTS SUMMARY
PRE-TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
Date: 09/21/2005 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
THORACIC SHOCK ABSORBER TEST	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

EXTERNAL DIMENSIONS
PRE-TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
Date: 09/21/2005 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 – 909	907
RH- Rib Height (mm)	502 – 520	518
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 – 241	241
KH- Knee Pivot from Back Line (mm)	511 – 526	521
KV- Knee Pivot to Floor (mm)	490 – 505	493
HW- Hip Width (mm)	356 - 391	366

REMARKS: None

PRE-TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
Date: 09/21/2005 Laboratory Technician: B. Swiecicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	OK
LOWER LEGS	VISUAL, RANGE OF MOTION	OK
ANKLES	VISUAL, RANGE OF MOTION	OK
FEET	VISUAL, RANGE OF MOTION	OK
JOINTS	1 TO 2 g RANGE	OK
OTHER	NONE	-

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 906

CONFIGURED FOR LEFT SIDE IMPACT

CALIBRATION TEST RESULTS SUMMARY
PRE-TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
Date: 09/21/2005 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
THORACIC SHOCK ABSORBER TEST	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

EXTERNAL DIMENSIONS
PRE-TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
Date: 09/21/2005 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	904
RH- Rib Height (mm)	502 - 520	516
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	241
KH- Knee Pivot from Back Line (mm)	511 - 526	521
KV- Knee Pivot to Floor (mm)	490 - 505	493
HW- Hip Width (mm)	356 - 391	368

REMARKS: None

PRE-TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
Date: 09/21/2005 Laboratory Technician: B. Swiecicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	OK
LOWER LEGS	VISUAL, RANGE OF MOTION	OK
ANKLES	VISUAL, RANGE OF MOTION	OK
FEET	VISUAL, RANGE OF MOTION	OK
JOINTS	1 TO 2 g RANGE	OK
OTHER	NONE	-

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 905

CONFIGURED FOR LEFT SIDE IMPACT

CALIBRATION TEST RESULTS SUMMARY
POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
Date: 12/12/2005 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

EXTERNAL DIMENSIONS
POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
Date: 12/12/2005 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	904
RH- Rib Height (mm)	502 - 520	516
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	241
KH- Knee Pivot from Back Line (mm)	511 - 526	521
KV- Knee Pivot to Floor (mm)	490 - 505	493
HW- Hip Width (mm)	356 - 391	368

REMARKS: None

POST TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 905 Sequential Test Number: 1
Date: 12/12/2005 Laboratory Technician: B. Swiecicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	OK
LOWER LEGS	VISUAL, RANGE OF MOTION	OK
ANKLES	VISUAL, RANGE OF MOTION	OK
FEET	VISUAL, RANGE OF MOTION	OK
JOINTS	1 TO 2 g RANGE	OK
OTHER	NONE	-

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 906

CONFIGURED FOR LEFT SIDE IMPACT

CALIBRATION TEST RESULTS SUMMARY
POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
Date: 12/12/2005 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

EXTERNAL DIMENSIONS
POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
Date: 12/12/2005 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	907
RH- Rib Height (mm)	502 - 520	516
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	241
KH- Knee Pivot from Back Line (mm)	511 - 526	518
KV- Knee Pivot to Floor (mm)	490 - 505	493
HW- Hip Width (mm)	356 - 391	381

REMARKS: None

POST TEST DUMMY INSPECTION LIST

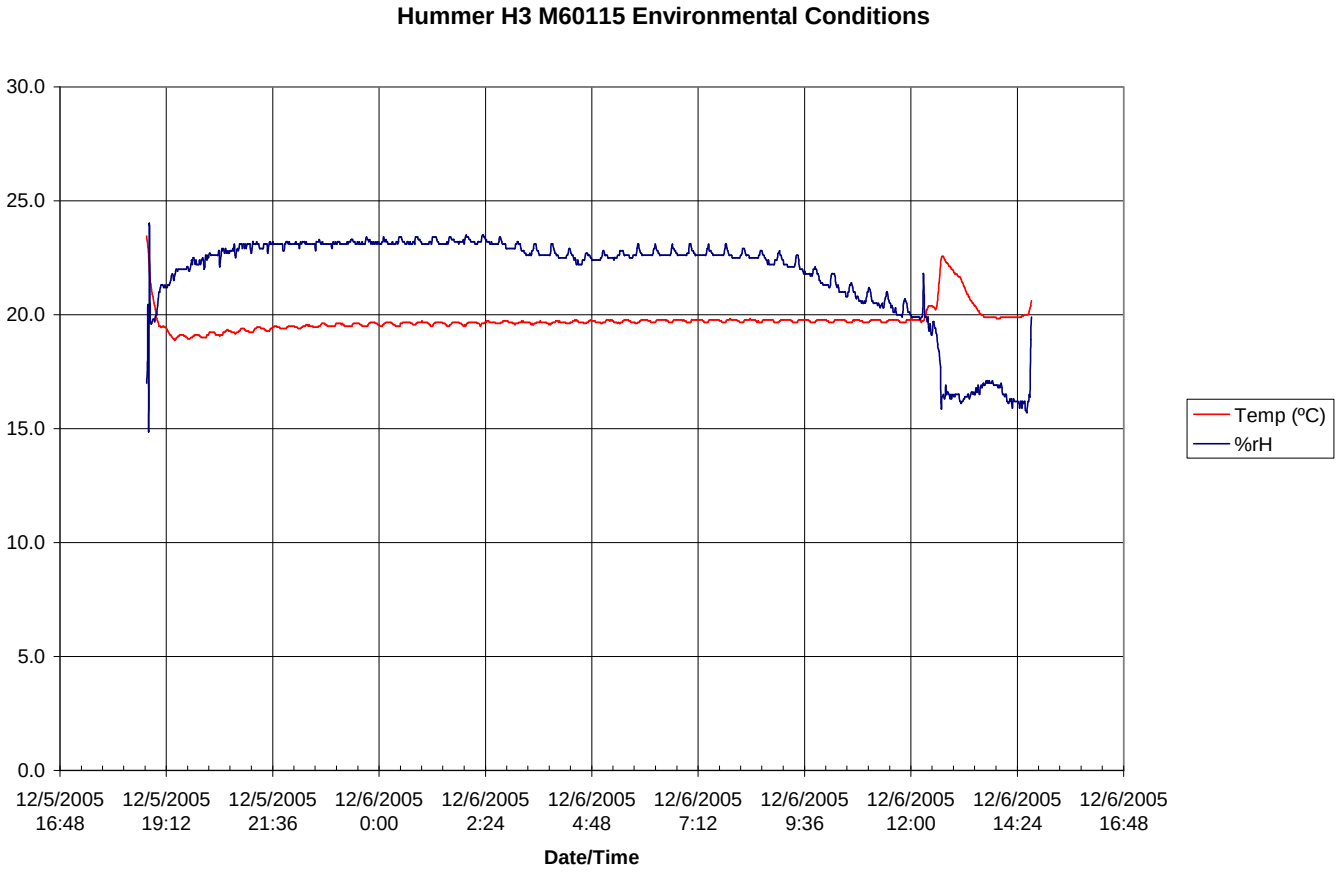
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 906 Sequential Test Number: 1
Date: 12/12/2005 Laboratory Technician: B. Swiecicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	OK
LOWER LEGS	VISUAL, RANGE OF MOTION	OK
ANKLES	VISUAL, RANGE OF MOTION	OK
FEET	VISUAL, RANGE OF MOTION	OK
JOINTS	1 TO 2 g RANGE	OK
OTHER	NONE	-

REMARKS: None

TEMPERATURE TRACE



APPENDIX D

TEST EQUIPMENT AND CALIBRATION INFORMATION

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

SID/HIII INSTRUMENTATION

	FRONT SID/HIII NO.: 905		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P21373	ENDEVCO	13-Jul-05
HEAD AY	AC-P23128	ENDEVCO	13-Jul-05
HEAD AZ	AC-P21297	ENDEVCO	13-Jul-05
UPPER NECK FX	LC-1626FX	DENTON	25-Jun-05
UPPER NECK FY	LC-1626FY	DENTON	25-Jun-05
UPPER NECK FZ	LC-1626FZ	DENTON	25-Jun-05
UPPER NECK MX	LC-1626MX	DENTON	25-Jun-05
UPPER NECK MY	LC-1626MY	DENTON	25-Jun-05
UPPER NECK MZ	LC-1626MZ	DENTON	25-Jun-05
UPPER RIB	AC-P15736	ENDEVCO	14-Jul-05
LOWER RIB	AC-P16593	ENDEVCO	14-Jul-05
LOWER SPINE	AC-P16289	ENDEVCO	14-Jul-05
PELVIS	AC-P23142	ENDEVCO	14-Jul-05
UPPER RIB REDUNDANT	AC-P16593	ENDEVCO	14-Jul-05
LOWER RIB REDUNDANT	AC-P16289	ENDEVCO	14-Jul-05
LOWER SPINE REDUNDANT	AC-P23142	ENDEVCO	14-Jul-05
PELVIS REDUNDANT	AC-P16761	ENDEVCO	14-Jul-05

	REAR SID/HIII NO.: 906		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P23788	ENDEVCO	15-Jul-05
HEAD AY	AC-P21393	ENDEVCO	15-Jul-05
HEAD AZ	AC-P16845	ENDEVCO	15-Jul-05
UPPER NECK FX	LC-798FX	DENTON	31-May-05
UPPER NECK FY	LC-798FY	DENTON	31-May-05
UPPER NECK FZ	LC-798FZ	DENTON	31-May-05
UPPER NECK MX	LC-798MX	DENTON	31-May-05
UPPER NECK MY	LC-798MY	DENTON	31-May-05
UPPER NECK MZ	LC-798MZ	DENTON	31-May-05
UPPER RIB	AC-P16862	ENDEVCO	15-Jul-05
LOWER RIB	AC-P23156	ENDEVCO	15-Jul-05
LOWER SPINE	AC-P16866	ENDEVCO	14-Jul-05
PELVIS	AC-P16656	ENDEVCO	15-Jul-05
UPPER RIB REDUNDANT	AC-P23156	ENDEVCO	15-Jul-05
LOWER RIB REDUNDANT	AC-P16866	ENDEVCO	14-Jul-05
LOWER SPINE REDUNDANT	AC-P16656	ENDEVCO	15-Jul-05
PELVIS REDUNDANT	AC-P16645	ENDEVCO	15-Jul-05

REMARKS: None

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

VEHICLE AND MDB INSTRUMENTATION

	VEHICLE AND MDB INSTRUMENTS		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
RIGHT FRONT SILL (X)	AC-J30491	ENDEVCO	18-Jul-05
RIGHT FRONT SILL (Y)	AC-J31011	ENDEVCO	18-Jul-05
RIGHT FRONT SILL (Z)	AC-J33071	ENDEVCO	18-Jul-05
RIGHT REAR SILL (X)	AC-J31101	ENDEVCO	18-Jul-05
RIGHT REAR SILL (Y)	AC-J31020	ENDEVCO	18-Jul-05
RIGHT REAR SILL (Z)	AC-J31059	ENDEVCO	18-Jul-05
REAR FLOORPAN ABOVE AXLE (X)	AC-P23161	ENDEVCO	18-Jul-05
REAR FLOORPAN ABOVE AXLE (Y)	AC-P19111	ENDEVCO	18-Jul-05
REAR FLOORPAN ABOVE AXLE (Z)	AC-P24011	ENDEVCO	18-Jul-05
LEFT REAR SILL (Y)	AC-FGP23	ICS	12-Oct-05
LEFT FRONT SILL (Y)	AC-FGP43	ICS	12-Oct-05
LEFT FRONT DOOR CENTERLINE (Y)	-	-	-
RIGHT REAR SEAT OCCUPANT COMP. (Y)	AC-9440-039	GS SENSORS	17-Oct-05
MID REAR OF LEFT FRONT DOOR (Y)	-	-	-
LEFT FRONT DOOR UPPER C\L (Y)	-	-	-
MID REAR OF LEFT REAR DOOR (Y)	-	-	-
LEFT REAR DOOR UPPER C\L (Y)	-	-	-
LOWER LEFT B- PILLAR (Y)	AC-P23174	ENDEVCO	11-Jul-05
MIDDLE LEFT B-PILLAR (Y)	AC-P19253	ENDEVCO	8-Jul-05
LOWER LEFT A-PILLAR (Y)	AC-FGP46	ICS	13-Oct-05
UPPER LEFT A-PILLAR (Y)	AC-9440-017	GS SENSORS	13-Oct-05
FRONT SEAT TRACK (Y)	AC-P19217	ENDEVCO	18-Jul-05
REAR SEAT TRACK (Y)	AC-P16616	ENDEVCO	18-Jul-05
VEHICLE CG (X)	AC-P16625	ENDEVCO	19-Jul-05
VEHICLE CG (Y)	AC-J33843	ENDEVCO	19-Jul-05
VEHICLE CG (Z)	AC-P23178	ENDEVCO	19-Jul-05
MDB CG (X)	AC-C16433	ENDEVCO	30-Jun-05
MDB CG (Y)	AC-C16416	ENDEVCO	30-Jun-05
MDB CG (Z)	AC-C16499	ENDEVCO	30-Jun-05
MDB REAR FRAME MEMBER (X)	AC-C14948	ENDEVCO	30-Jun-05
MDB REAR FRAME MEMBER (Y)	AC-C16680	ENDEVCO	30-Jun-05

REMARKS: None