

REPORT NUMBER: MCW-DOT-08SN01

**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

2008 FORD MUSTANG 2-DOOR COUPE

NHTSA NUMBER: M80206

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FINAL REPORT

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NVS-111
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Date:

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16. Abstract A 55/28 km/h 90° Moving Deformable Barrier (MDB) New Car Assessment Program (NCAP) side impact was conducted on the subject 2008 Ford Mustang 2-door coupe 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 22 August 2008. The impact velocity of the Moving Deformable Barrier (MDB) was 62.0 km/h, and the ambient temperature at the struck side of the vehicle was 25 °C. The target vehicle's maximum post test static crush was 191 mm at level .3 The test vehicle's occupant performance is as follows: <table border="1" data-bbox="154 1249 1299 1522"> <thead> <tr> <th></th> <th><u>Units</u></th> <th><u>DRIVER</u></th> <th><u>PASS.</u></th> </tr> </thead> <tbody> <tr> <td>Left upper rib (LUR) acceleration</td> <td>G</td> <td>35.2</td> <td>70.6</td> </tr> <tr> <td>Left lower rib (LLR) acceleration</td> <td>G</td> <td>39.7</td> <td>59.0</td> </tr> <tr> <td>Lower spine (T₁₂) acceleration</td> <td>G</td> <td>43.5</td> <td>72.6</td> </tr> <tr> <td>Thoracic Trauma Index (TTI)</td> <td></td> <td>42</td> <td>72</td> </tr> <tr> <td>Pelvis (PEV) acceleration</td> <td>G</td> <td>42.6</td> <td>47.2</td> </tr> <tr> <td>HIC</td> <td></td> <td>67.5</td> <td>546.3</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	35.2	70.6	Left lower rib (LLR) acceleration	G	39.7	59.0	Lower spine (T ₁₂) acceleration	G	43.5	72.6	Thoracic Trauma Index (TTI)		42	72	Pelvis (PEV) acceleration	G	42.6	47.2	HIC		67.5	546.3
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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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TABLE OF CONTENTS

<u>Section</u>		<u>Page</u> <u>No.</u>
1	Purpose and test procedure	1
2	Summary of NCAP side impact test	2
<u>Data Sheet</u>		<u>Page</u> <u>No.</u>
1	General test and vehicle parameter data	5
2	Test vehicle tire information	8
3	Test vehicle information	9
4	Moving Deformable Barrier (MDB) summary of results	11
5	Post test observations	14
6	Vehicle pre test and post test measurements	16
7	SID/HIII longitudinal clearance dimensions	17
8	SID/HIII lateral clearance dimensions	18
9	Vehicle side measurements	19
10	Vehicle exterior crush profiles	20
11	Vehicle damage profile distances	22
12	Deformable barrier honeycomb face static crush	23
13	Vehicle accelerometer locations	24
14	MDB accelerometer locations	25
15	High speed camera locations and data	26
16	Summary of FMVSS 301 data	27
<u>Appendix</u>		
A	Photographs	A
B	SID/HIII configuration and performance verification data	B
C	Dummy calibration data	C

SECTION 1

PURPOSE AND TEST PROCEDURE

PURPOSE

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

TEST PROCEDURE

The side impact test was conducted in accordance with the Laboratory Test Procedure for New Car Assessment Program Side Impact Testing dated November 2002. The procedures for receiving, inspection, testing, and reporting of test results are described in the test procedures and are not repeated in this report.

SECTION 2

SUMMARY OF NCAP SIDE IMPACT TEST

A 2008 Ford Mustang 2-door coupe 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 1724.5 kg test vehicle was impacted by the 1360 kg MDB traveling at a speed of 62.0 km/h (measured inline with the guidance system.) The test was conducted at the Medical College of Wisconsin on 22 August 2007.

Two (2) 50th percentile adult male Hybrid III-Side Impact Dummies (SID/HIIIs) were placed in designated seating positions within the test vehicle: one (1) driver, and one (1) left rear passenger; serial numbers 056 and 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 (primary and redundant)
- Upper neck tri-axial (X, Y, Z) force load cells and tri-axial (X, Y, Z) moment load cells

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

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

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

2.2 GENERAL COMMENTS

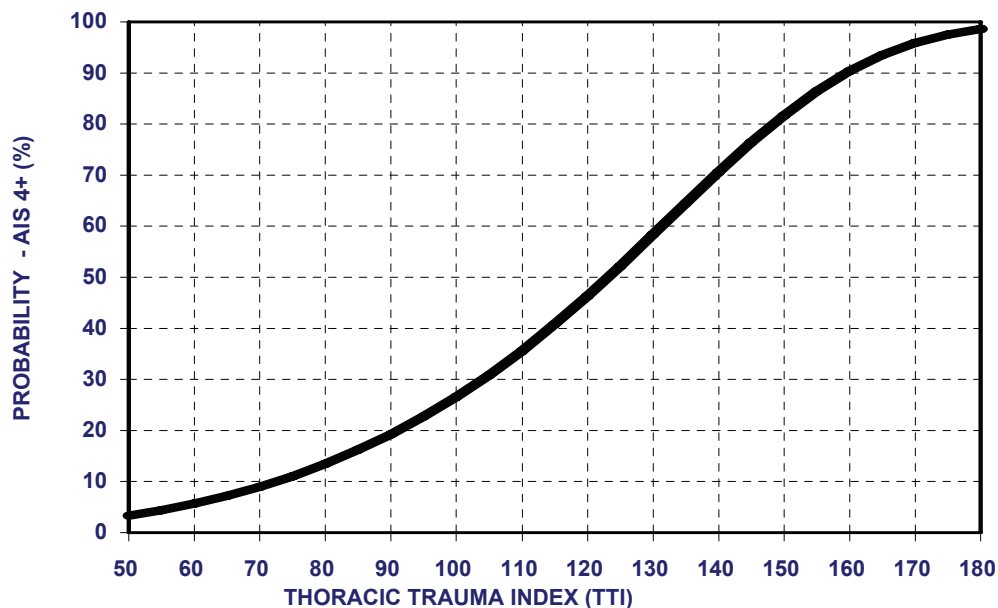
The test vehicle sustained a maximum static crush of 191 mm at level 3, 750 mm rearward of the vertical impact line.

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	67.5	546.3
T1 (ms)	42.0	53.8
T2 (ms)	77.9	62.1
TTI	42	72
Maximum pelvic acceleration (G)	42.6	47.2

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

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



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

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

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

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

TEST NOTES

DATA SHEET NO. 1
GENERAL TEST AND VEHICLE PARAMETER DATA

VEHICLE INFORMATION		VEHICLE OPTIONS	
Year	2008	Air conditioning	Yes
Make	Ford	Anti-lock brakes	No
Model	Mustang	AM/FM radio	Yes
Body style	2-door Coupe	All wheel drive	No
NHTSA number	M8 0206	Clock	No
MCW test ID	08SN01	Console	Yes
VIN	1ZVHT80N085104777	Cruise/speed control	Yes
Color	Dark Apple Red	Disc brakes, front	Yes
Build date	July 2007	Disc brakes, rear	Yes
Engine No. of cylinders	6	Power brakes	Yes
Engine Displacement (L)	4.0	Power door locks	Yes
Engine Placement	Longitudinal	Power steering	Yes
Transmission	Manual 5 speed	Power windows	Yes
Final drive	Rear wheel drive	Rear window defroster	Yes
Delivery date	August 14, 2007	Roof rack	No
Odometer reading	171.3 miles	Tilt steering wheel	Yes

CERTIFICATION LABEL INFORMATION			
Manufacturer	Ford Motor Company	GVWR (kg)	1987
		GAWR front(kg)	966
Date of manufacture	July 2007	GAWR rear (kg)	1034

SEAT INFORMATION			
	Number of occupants	Seat type	Seat back type
Front	2	Bucket	Adjustable
Back	2	Bench	Fixed
Third	0		
Total	4		

CARGO CAPACITY CALCULATION			
	Units	Value	Reference label
Vehicle maximum capacity	kg	327.3	(A)
Number of occupants (7) X 68.04 kg	kg	272.8	(B)
Cargo capacity (RCLW) †	kg	54.5	(C) = (A)-(B) †

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

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

TEST VEHICLE MASS INFORMATION				
	Units	As delivered	As tested	Fully loaded
Left front	kg	416.4	455.5	459.1
Right front	kg	411.4	417.3	416.8
Left rear	kg	338.6	426.8	429.1
Right rear	kg	349.6	425.5	426.8
Total front	kg	827.8	872.8	875.9
% Total front	%	54.6	50.6	50.6
Total rear	kg	688.2	852.3	855.9
% Total rear	%	45.4	49.4	49.4
Total	kg	1516	1725.1	1731.8

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	1516	(D)
Maximum cargo capacity (RCLW)	kg	54.5	(C)
Mass of SID HIII's (1 or 2)	kg	161.4	(E)
Test vehicle target mass (TVTW)	kg	1731.8	(D) + (C) + (E)

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

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

IMPACT LOCATION ON TEST VEHICLE	
Wheelbase	2720 mm
Nominal impact point	420 mm rearward of front axle
Actual impact point	440 mm rearward of front axle

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

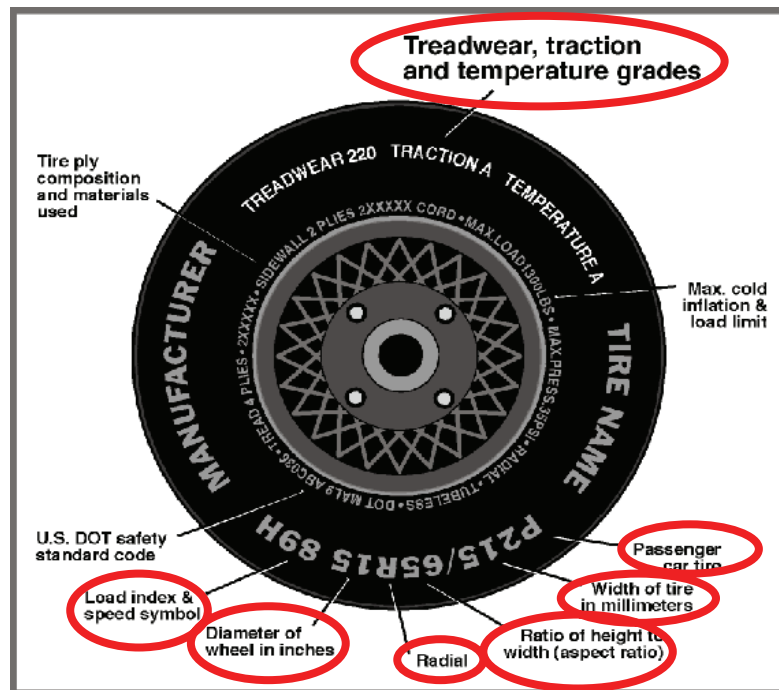
TEST VEHICLE ATTITUDES				
	Units	As delivered	As tested	Fully loaded
Left front	mm	749	738	737
Right front	mm	746	741	740
Left rear	mm	770	735	733
Right rear	mm	770	742	740
CG (X)	mm	1234	1344	1344

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

CG (X) measured rearward from front axle centerline

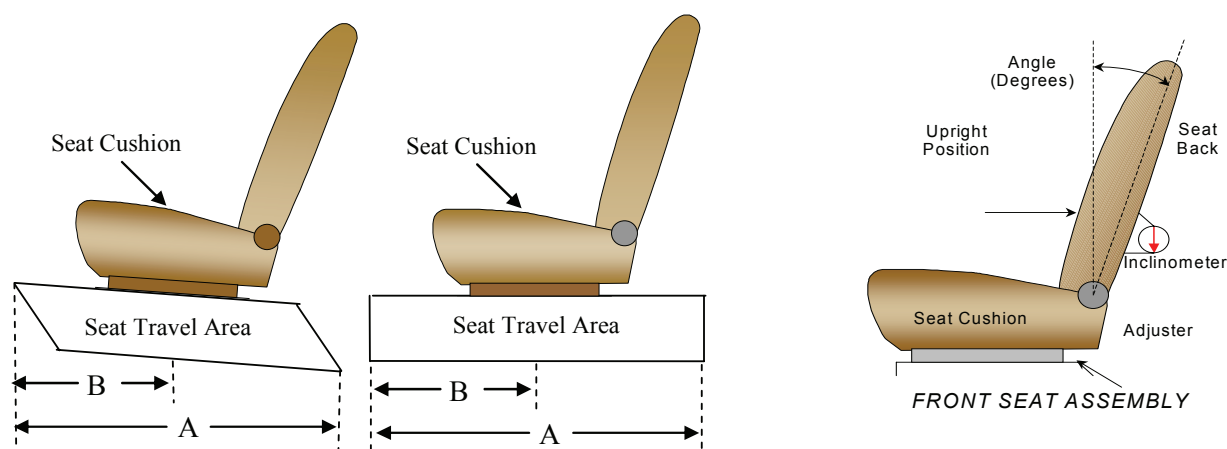
AUTOMATIC DOOR LOCK (ADL) INFORMATION				
	Left front	Left rear	Right front	Right rear
ADL present	Yes	Yes	Yes	Yes
ADL deactivated	No	No	No	No
Deactivation method	N/a			
Door lock status	Unlocked	Unlocked	Unlocked	Unlocked

DATA SHEET NO. 2
TEST VEHICLE TIRE INFORMATION



TIRE INFORMATION		
Measured Parameter	Front	Rear
Maximum tire pressure (kPa)	300	300
Cold / test pressure (kPa)	240	240
Recommended tire size	P215/65R16	P215/65R16
Tire size on vehicle	P215/65R16	P215/65R16
Tire manufacturer	BF Goodrich	BF Goodrich
Tire name	Traction TA	Traction TA
Tire type	AP2H	AP2H
Tire width (mm)	215	215
Ratio of height to width (aspect ratio)	65	65
Radial	Yes	Yes
Wheel diameter (inches)	16	16
Load index & speed symbol	96T	96T
Tread wear	620	620
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	Manual/Adjustable	Fixed
Fore/aft total travel (mm)	260	N/a
Number of detents	25	N/a
Test position	12 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
Seat back angle @ head rest post	13°	Fixed
Test position	4 th notch	Fixed

‡Full upright = notch 0

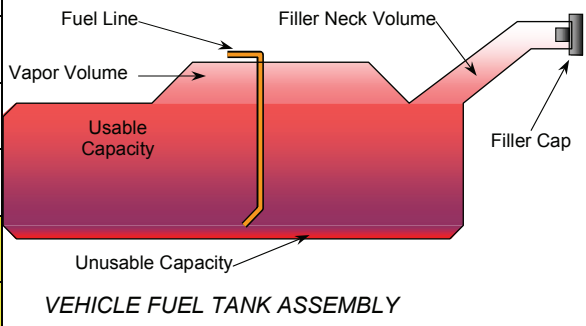
Seat belt position

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

SEAT BELT ADJUSTABLE ANCHORAGE (D-RING)		
	Left Front Seat	Left Rear Seat
Adjustable anchor present	Fixed	Fixed
Total travel (mm)	N/a	N/a
Test position	N/a	N/a

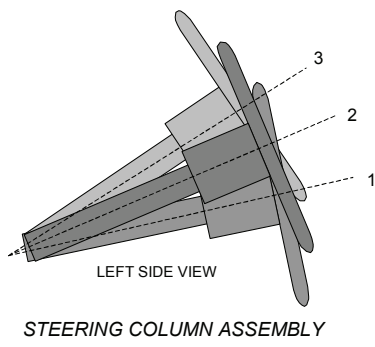
DATA SHEET NO. 3
TEST VEHICLE INFORMATION (continued)

Fuel tank information

STODDARD INFORMATION			
Description	Units	Value	
Usable capacity of standard equipment fuel tank	L	16.3	
Usable capacity of optional equipment fuel tank	L	N/a	
Usable capacity of vehicle used for certification testing to requirements	L	16.3	
Amount of stoddard added for test	L	15.2	
% Usable capacity (92%-94%)	%	93.3	
Operational instructions	None		
Electric fuel pump present	Yes		
Operating condition of test vehicle for fuel pump operation	The fuel pump is activated when the ignition is turned on.		

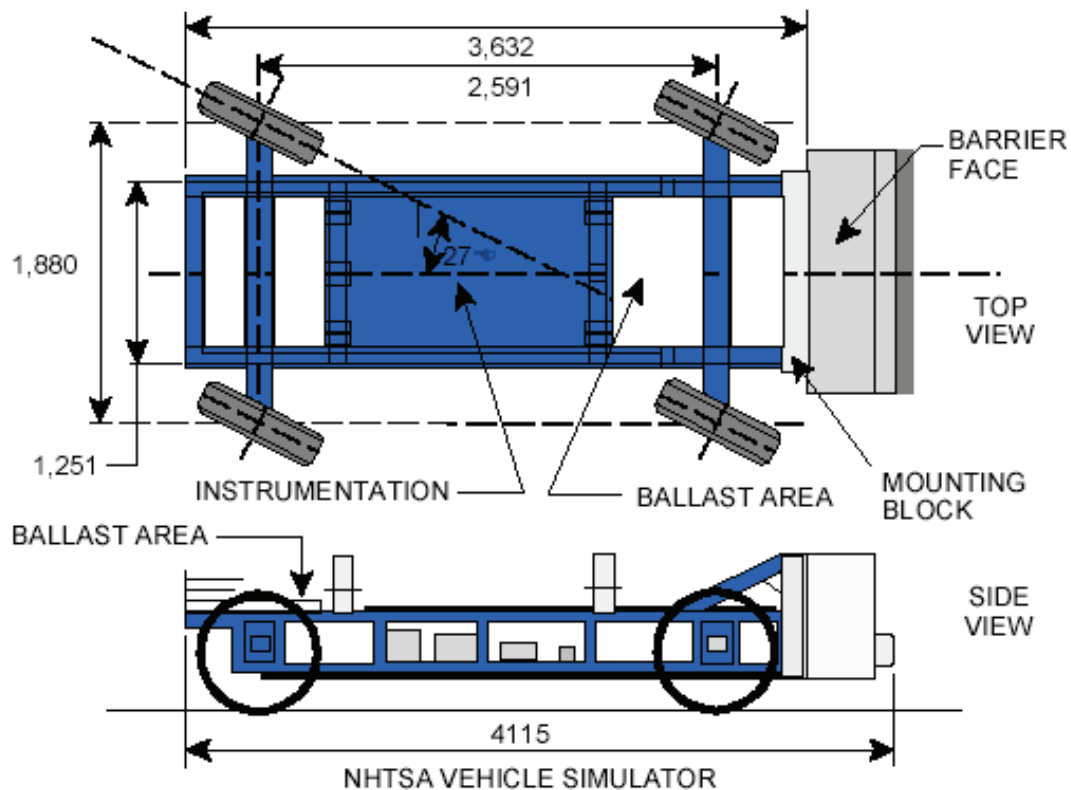
Steering wheel information

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

ADJUSTABLE STEERING COLUMN		
Adjustable column	Yes	
Steering wheel angle in upper most position	23.5°	
Steering wheel fore/aft travel	N/a	
Number of detents	7	
Test position	Steering wheel positioned 22.0° relative to side sill panel.	

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

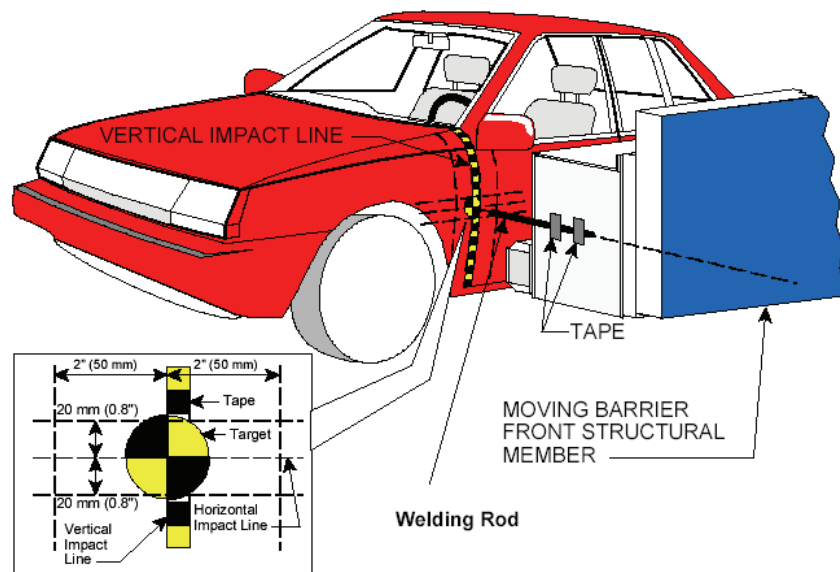
MDB SPECIFICATIONS				
	Units	Specification	Range	Value
Overall Width of Framework Carriage	mm	1251	1226-1276	1245
Overall Length w/Impactor Face	mm	4115	4090-4140	4101
Overall Length w/o Impactor Face	mm	3632	3607-3657	3617
Longitudinal Cg from Front Axle	mm	1123	1098-1148	1135
Track Width	mm	1880	1855-2005	1864
Mass	kg	1361	1356.5-1365.5	1360
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	1253
Right front	kg	423
Left rear	kg	252
Right rear	kg	1064
Total front	kg	1676
% Total front	%	56.0
Total rear	kg	1316
%Total rear	%	44.0
Total	kg	2992

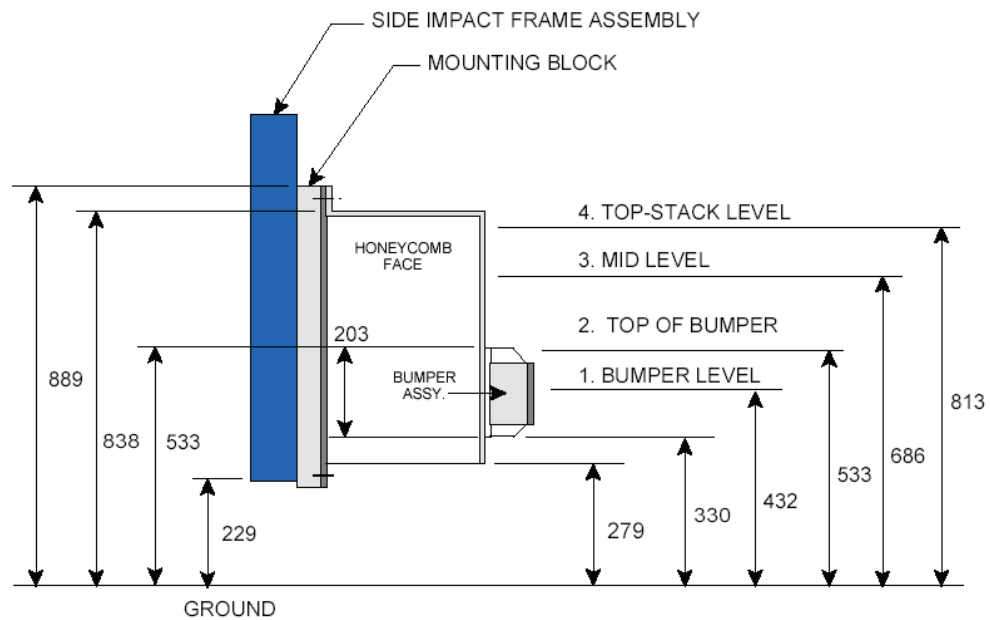
IMPACT SPEED				
	Units	Specification	Range	Value
Primary speed trap	kmh	61.9	61.1-62.7	62.0
Redundant speed trap	kmh	61.9	61.1-62.7	61.8



IMPACT POINT INFORMATION		
Vertical impact line is	420 mm rearward of front axle	
Actual impact is	440 mm rearward of front axle	
Measurement	Value	Tolerance
Impact point distance from vertical impact line	20 mm rearward	+/- 50 mm
Impact point distance from horizontal impact line	0 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	277
Bottom of bumper	mm	330	327-333	330	331
Top of bumper	mm	533	530-536	533	535
Top of barrier	mm	838	835-841	836	837



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	To side header	To side header
Upper torso contact	To seat mounted side airbag	To left interior panel 153 mm below window sill
Lower torso contact	To seat mounted side airbag	To interior panel at armrest
Left leg contact	To left front door panel 109 mm below arm rest	To B-pillar
Left knee contact	To left front door panel 226 mm below window sill	To rear of left front door panel 272 mm below window sill

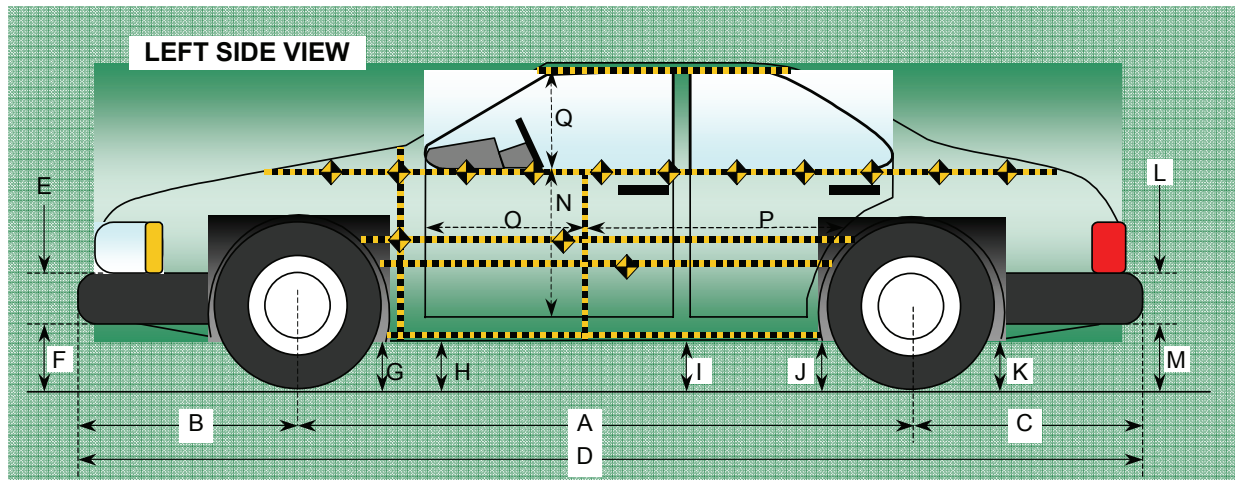
POST TEST DOOR OPENING AND SEAT TRACK INFORMATION		
Description	Front	Rear
Locked/unlocked doors	Unlocked	N/a
Left side door opening	Closed/latched/inoperable	N/a
Right side door opening	Closed/latched/operable	N/a
Seat movement	~45 mm of seat crush	~30 mm of seat crush
Seat back failure	None	None

POST TEST STRUCTURAL OBSERVATIONS	
Critical areas of performance	Observations/conclusions
Pillar performance	None
Sill separation	Sill separation 270 mm rearward of door hinge
Windshield damage	~660 mm crack across top of windshield and 580 mm crack across middle of windshield; both starting at A-pillar and going inboard
Window damage	Front and rear struck side windows shattered at impact
Other notable effects	123 mm gap between b-pillar and top of driver's door

DATA SHEET NUMBER 5
POST TEST OBSERVATIONS (continued)

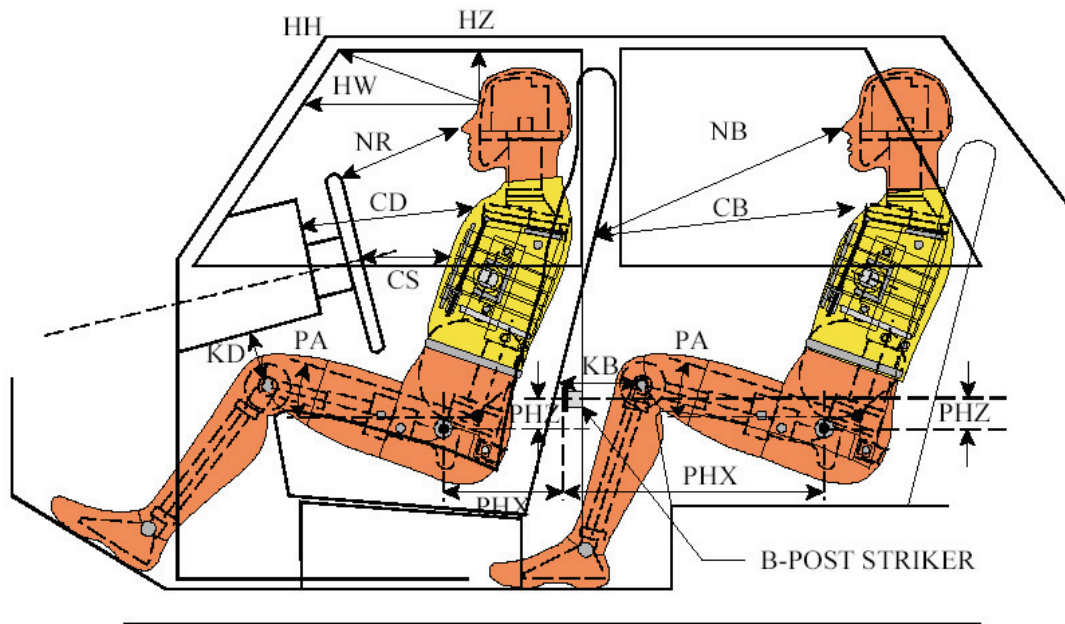
SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION				
Restraint Type	Left front (Driver) occupant Location 01		Left rear (passenger) occupant Location 04	
	Installed	Operation	Installed	Operation
Front airbag	Yes - steering wheel	Did not deploy	No	N/a
Side airbag	Yes - seat back	Deployed properly	No	N/a
Head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

DATA SHEET NUMBER 6
VEHICLE PRE AND POST MEASUREMENTS



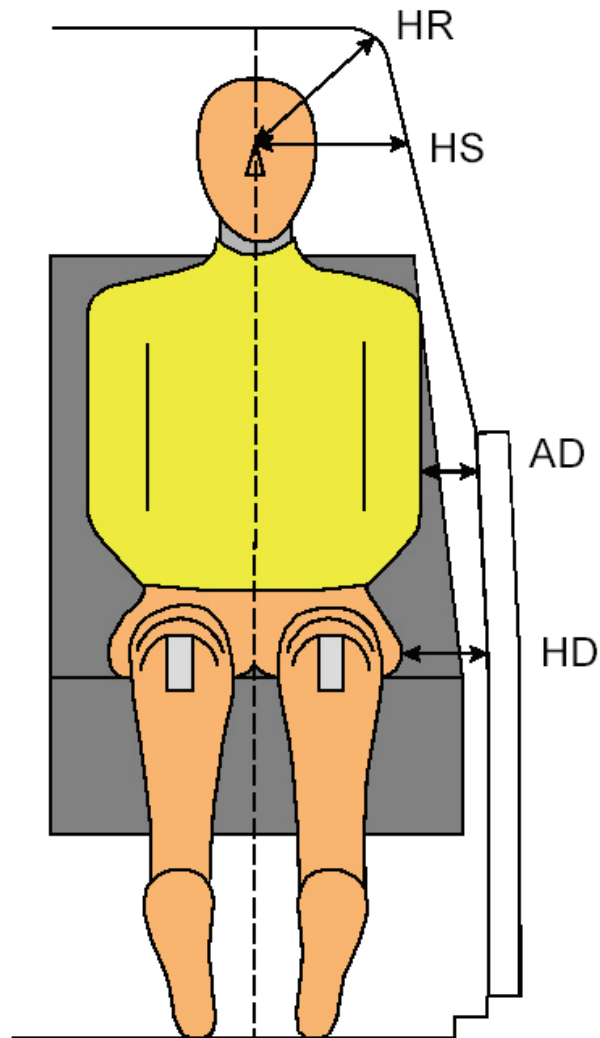
VEHICLE DIMENSIONS				
Code	Description	Pre test	Post test	Change
		mm	mm	mm
A	Wheelbase	2720	2681	-39
B	Front axle to front side of vehicle	488	485	-3
C	Rear axle to rear side of vehicle	982	988	6
D	Total length at centerline	4764	4753	-11
E	Front bumper thickness	250	250	0
F	Front bumper bottom to ground	253	278	25
G	Sill height at front wheel well	190	196	6
H	Sill height at front door leading edge	193	204	11
I	Sill height at b-pillar	214	210	-4
J1	Sill height at rear wheel well	165	142	-23
J2	Pinch weld height at rear wheel well	218	204	-14
K	Sill height aft of rear wheel well	410	370	-40
L	Rear bumper thickness	237	237	0
M	Rear bumper bottom to ground	443	394	-49
N	Sill height to window bottom sill	758	706	-52
O	Front door leading edge to impact C/L	1297	1275	-22
P	Rear door trailing edge to impact C/L	410	379	-31
Q	Front window opening	388	430	42
R	Right side length	4190	4190	0
S	Left side length	4190	4154	-36
T	Vehicle width at b-pillar	1814	1687	-127

DATA SHEET NUMBER 7
SID HIII LONGITUDINAL CLEARANCES



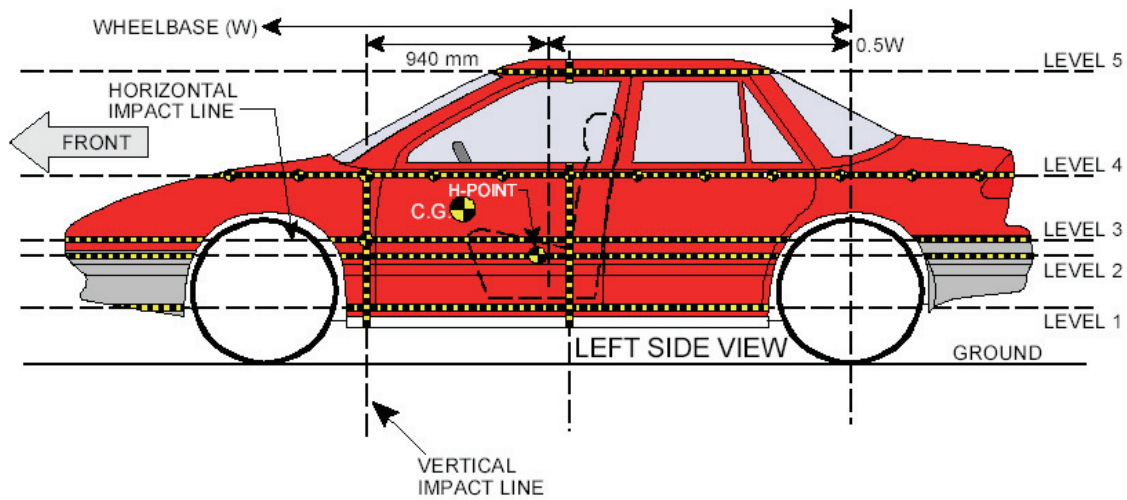
SID HIII LONGITUDINAL CLEARANCE MEASUREMENTS					
Driver code	Pass. code	Measurement description	Units	Left front seat	Left rear seat
		ATD serial number	-	056	058
HH	-	Head to header	mm	333	N/a
HW	-	Head to windshield	mm	612	N/a
HZ	HZ	Head to roof	mm	194	127
NR	NB	Nose to rim/nose to seatback	mm	393	524
CD	CB	Chest to dash or seatback	mm	724	459
CS	-	Chest to steering wheel	mm	317	N/a
KDL	KBL	Left knee to dash or seatback length	mm	144	129
KDA	KBA	Left knee to dash or seatback angle	°	18.9	19.0
KDR	KBR	Right Knee to dash or seatback length	mm	129	129
KDA	KDA	Right knee to dash or seatback angle	°	20.2	18.2
PA	PA	Pelvic angle	°	24.6	23.7
PHX	PHX	H-Point to striker (x-axis)	mm	467	-344
PHZ	PHZ	H-Point to striker (z-axis)	mm	242	210

DATA SHEET NUMBER 8
SID HIII LATERAL CLEARANCES



SID HIII LATERAL CLEARANCE MEASUREMENTS				
Code	Measurement description	Units	Left front seat	Left rear seat
-	ATD serial number	-	056	058
HR	Head to side header	mm	241	277
HS	Head to side window	mm	355	270
-	Shoulder to door	mm	106	120
AD	Arm to door	mm	135	145

**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	1273	22	1350
4	Window sill	932	48	1800
3	Mid-door	596	191	750
2	Driver H-point	449	184	300
1	Axle centerline or sill top	230	37	900
Maximum static crush		191 mm at level 3 750 mm rearward from vertical impact line		

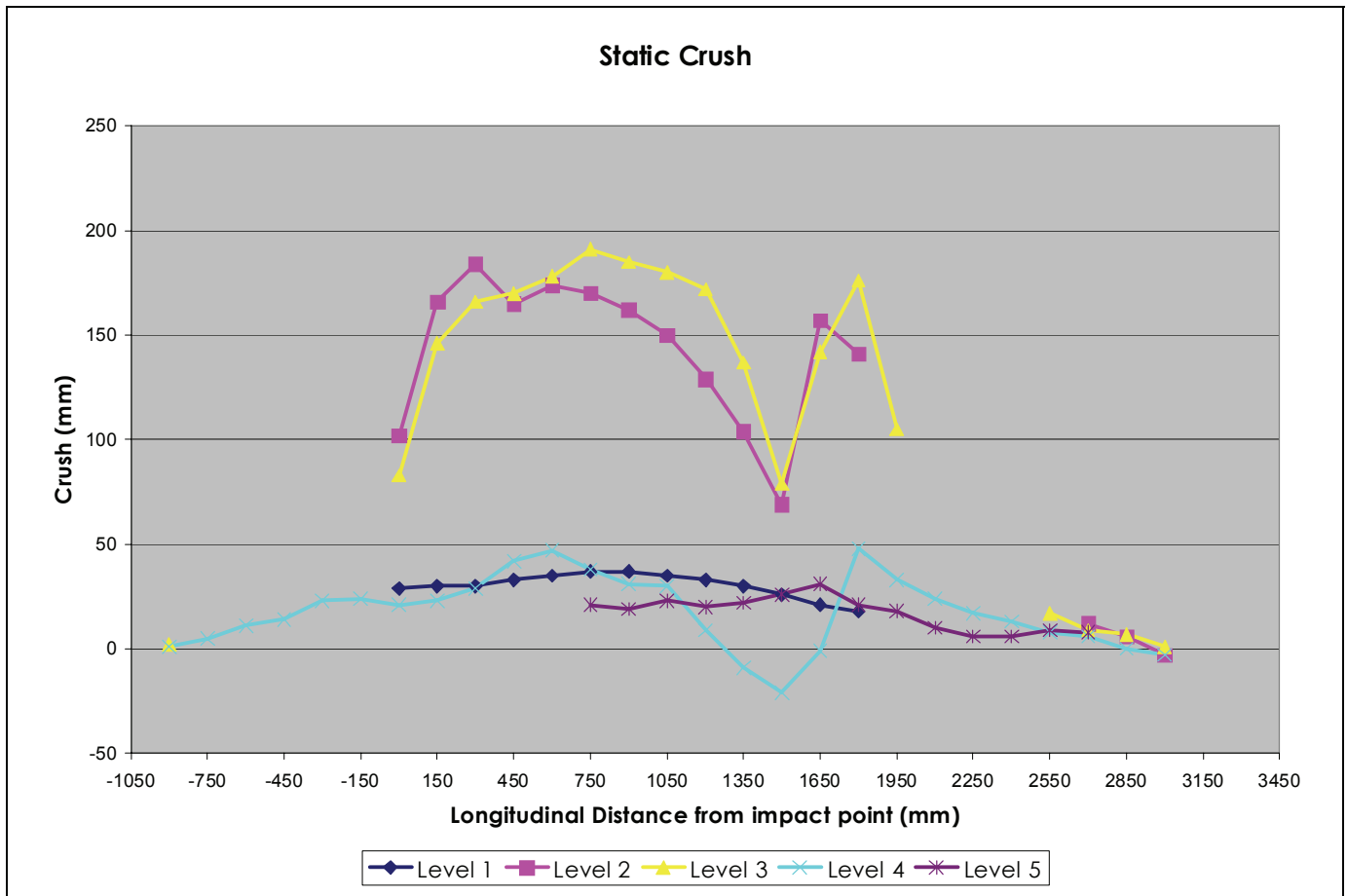
Height measurements taken 900 mm rearward from vertical impact line.

DATA SHEET 10
VEHICLE STATIC CRUSH PROFILE

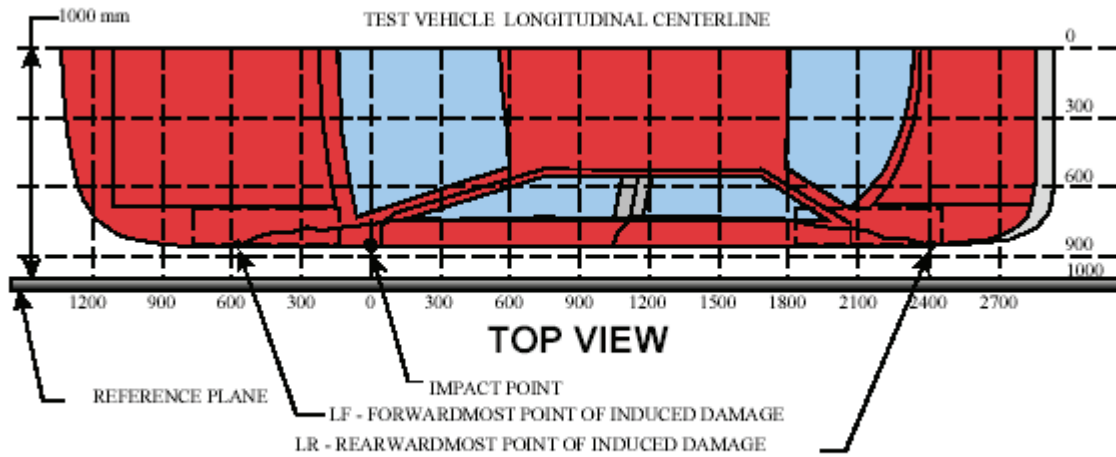
Note: All dimensions are in millimeters with a tolerance of ± 3 mm

TEST VEHICLE STATIC CRUSH																
Level		1			2			3			4			5		
Height		230			449			596			932			1273		
		Pre	Post	Crush	Pre	Post	Crush	Pre	Post	Crush	Pre	Post	Crush	Pre	Post	Crush
DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT	-1050															
	-900							211	213	2	296	297	1			
	-750										282	287	5			
	-600										268	279	11			
	-450										262	276	14			
	-300										254	277	23			
	-150										250	274	24			
	0	190	219	29	155	257	102	152	235	83	247	268	21			
	150	191	221	30	157	323	166	152	298	146	243	266	23			
	300	190	220	30	159	343	184	150	316	166	239	268	29			
	450	189	222	33	158	323	165	150	320	170	237	279	42			
	600	189	224	35	158	332	174	149	327	178	237	284	47			
	750	189	226	37	158	328	170	149	340	191	235	273	38	393	414	21
	900	190	227	37	158	320	162	148	333	185	234	265	31	425	444	19
	1050	191	226	35	158	308	150	149	329	180	234	264	30	445	468	23
	1200	192	225	33	159	288	129	150	322	172	236	245	9	454	474	20
	1350	194	224	30	161	265	104	151	288	137	238	229	-9	455	477	22
	1500	195	221	26	163	232	69	153	232	79	240	219	-21	451	477	26
	1650	197	218	21	157	314	157	155	297	142	244	243	-1	445	476	31
	1800	199	217	18	146	287	141	142	318	176	246	294	48	438	459	21
	1950							125	230	105	251	284	33	429	447	18
	2100										256	280	24	422	432	10
	2250										265	282	17	412	418	6
	2400										270	283	13	402	408	6
	2550							129	146	17	277	285	8	395	404	9
	2700				149	161	12	169	178	9	285	291	6	385	393	8
	2850				194	200	6	189	196	7	295	295	0			
	3000				214	211	-3	204	205	1	306	303	-3			
	3150															
	3330															

DATA SHEET 10
VEHICLE STATIC CRUSH PROFILE

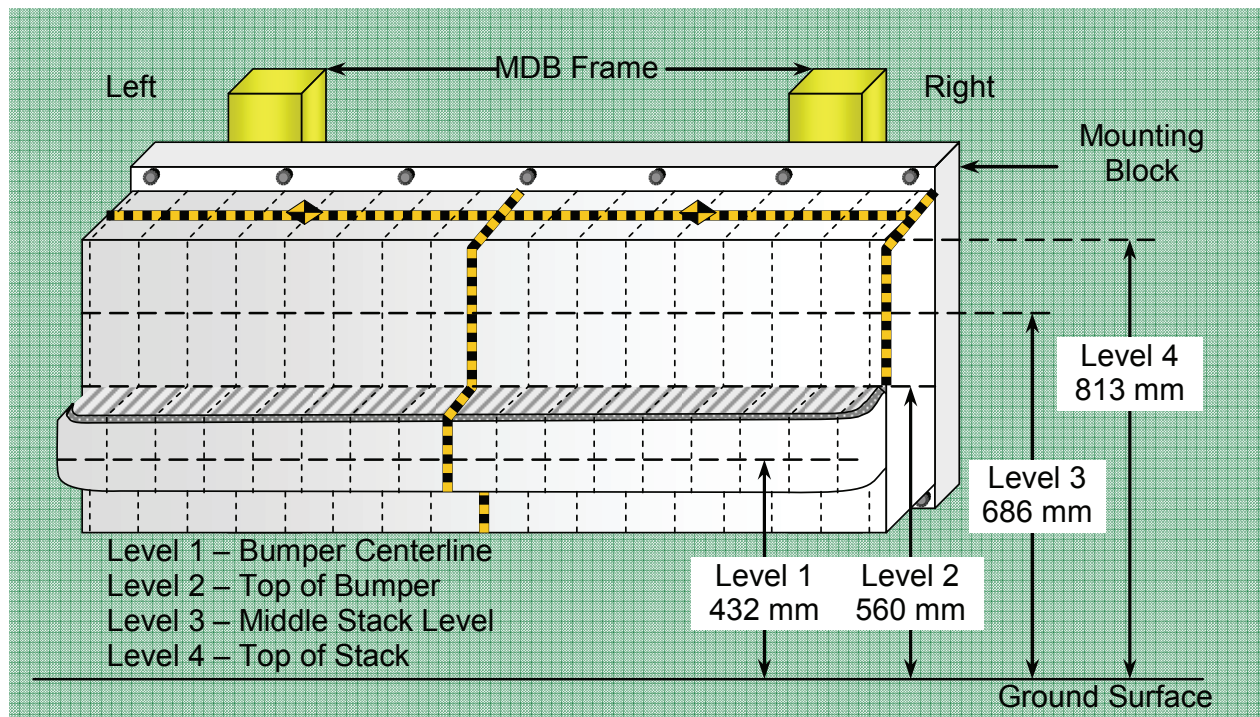


DATA SHEET 11
VEHICLE DAMAGE PROFILE DISTANCES (DPD)



DPD MEASUREMENTS				
	DPD measurement (mm)	Pre test (mm)	Post test (mm)	Crush (mm)
1	-300	162	162	0
2	210	159	316	157
3	720	155	336	181
4	1230	151	309	158
5	1740	148	312	164
6	2250	144	144	0

DATA SHEET 12
DEFORMABLE BARRIER STATIC CRUSH

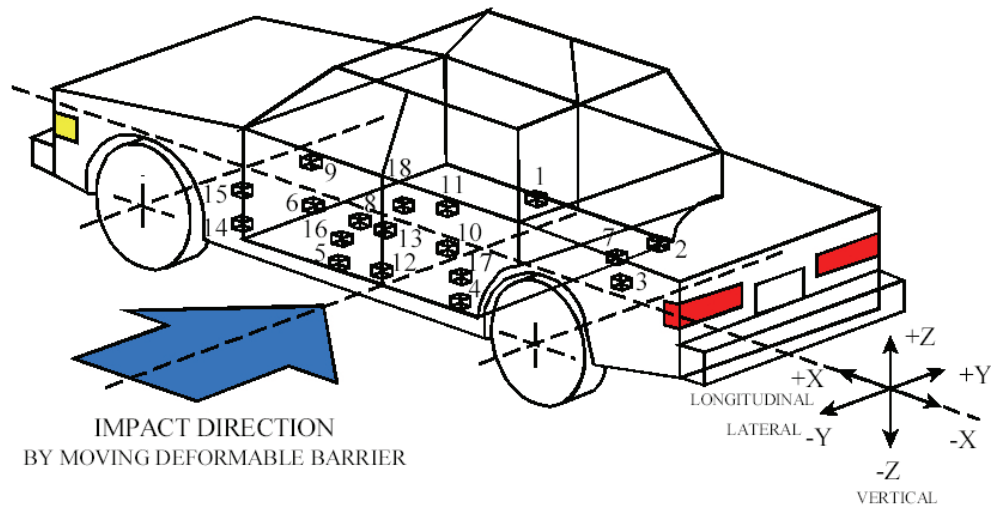


DEFORMABLE BARRIER FACE SUMMARY		
Barrier face manufacturer		Plascore
Serial number		163A0806-186B0706
Level	Description	Maximum crush
1	Center of bumper	232
2	Top of bumper	191
3	Middle of stack	148
4	Top of stack	185
Maximum post test intrusion is 233 mm at level 1		

BARRIER STATIC CRUSH																	
	Distance left of center								C _L	Distance right of center							
	800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800
4	134	149	134	96	79	49	47	47	58	72	89	105	120	137	168	164	185
3	123	140	148	127	61	46	38	37	39	39	41	53	67	98	129	123	135
2	174	191	181	152	123	108	97	95	9	95	88	83	90	92	108	108	106
1	232	233	231	216	189	168	151	149	148	148	149	150	151	168	172	167	163

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	x	y	z
2	Right sill at rear seat	2395	727	521
3	Rear floor pan above axle	1646	721	518
4	Left sill at rear door	1125	23	28
5	Left sill at front door	1640	-709	518
6	Left front door C/L	2387	-714	520
7	Rear occupant compartment	†	†	†
8	Left front door mid-rear	1832	297	362
9	Left front door upper C/L	†	†	†
10	Left rear door mid-rear	†	†	†
11	Left rear door upper C/L	†	†	†
12	Left lower b-pillar	†	†	†
13	Left middle b-pillar	1877	-640	270
14	Left lower a-pillar	1809	-681	-19
15	Left middle a-pillar	2995	-681	254
16	Front seat track	2970	-712	-21
17	Rear seat track or structure	2379	-631	340
18	Vehicle CG	1829	-398	288

Origin

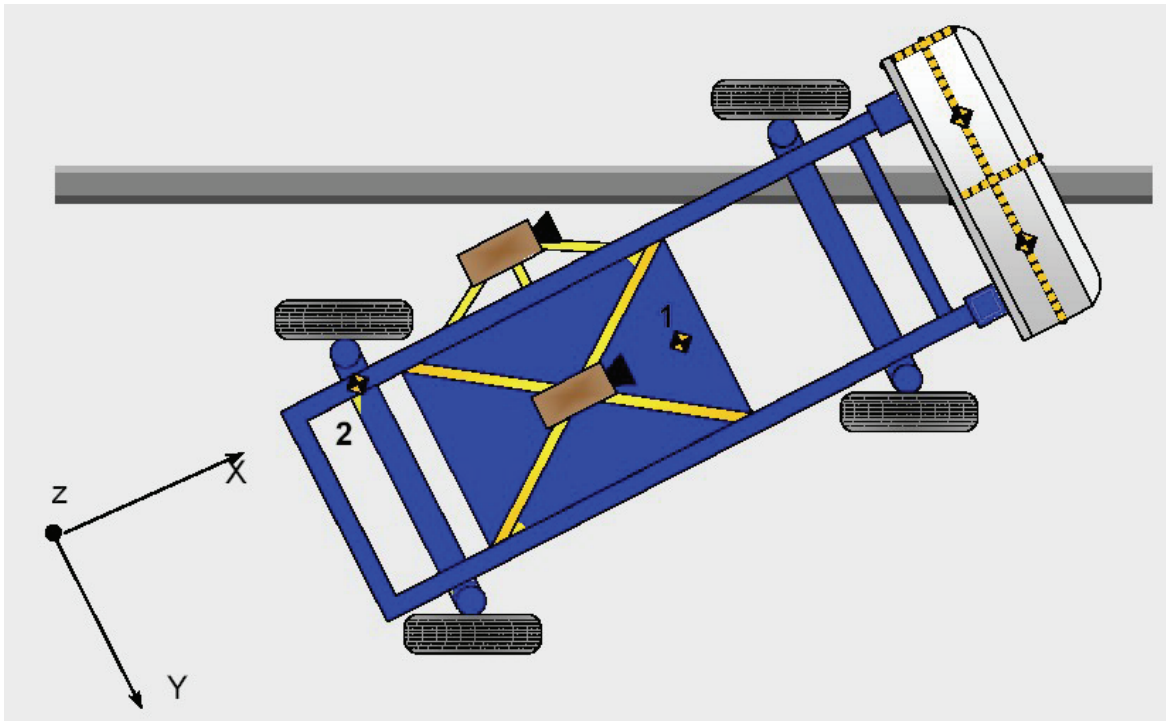
X Rear bumper
Y Midline of vehicle
Z Top of rear bumper

Orientation

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

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

DATA SHEET 14
MDB ACCELEROMETER LOCATIONS



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

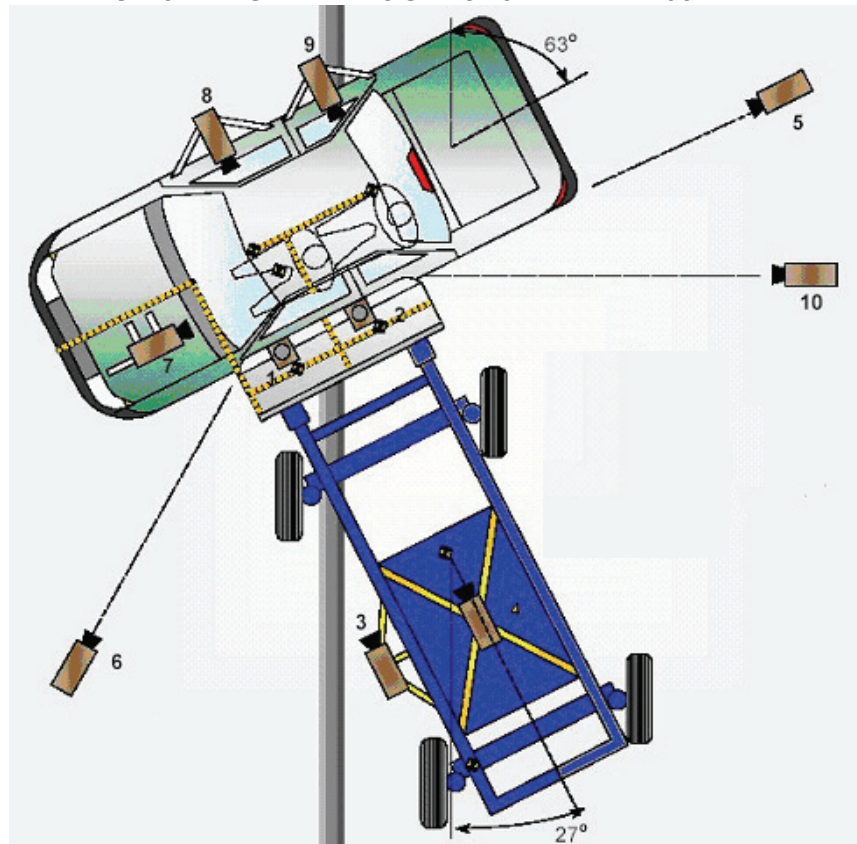
Origin

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

Orientation

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

DATA SHEET 15
HIGH-SPEED CAMERA LOCATIONS AND DATA SUMMARY



	View	Coordinates †			Angle °	Lens mm	Rate fps
		X	Y	Z			
		mm	mm	mm			
1	Overhead view of test vehicle	-249	-640	4812	90	12.5	1000
2	Overhead close-up view of impact plane	-550	-125	4340	90	16	1000
3	MDB onboard close-up view of impact point	-1542	-1026	25	0.9	25.4	1000
4	MDB onboard view of driver dummy	-1415	-1891	780	3.8	13	1000
5	Right side ground level overall view	-2311	-699	879	5.5	50	1000
6	Left side ground level overall view	668	-1184	848	10.3	25	1000
7	Test vehicle onboard driver front view				8.6	25	1000
8	Test vehicle onboard driver side view				10.3	12.5	1000
9	Test vehicle onboard passenger side view				11.1	12.5	1000
10	Real-time film coverage of test	-	-	-	-	-	-

Origin

X

Y

Z

Impact Point

Impact Point

Impact Point

Orientation

X

Y

Z

+(X) Forward

+(Y) Right

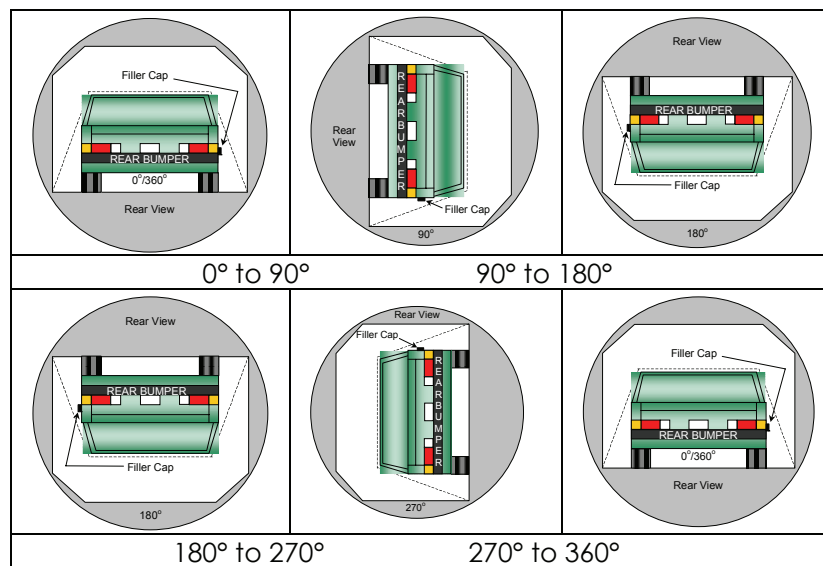
+(Z) Down

DATA SHEET 16
FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA

Temperature at Time of Impact: 24° C Test Time: 5:08 pm

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

FMVSS 301 STATIC ROLLOVER



FMVSS301 STATIC ROLLOVER DATA			
Test phase	Rotation time (sec.)	Hold time (sec.)	Total time (sec.)
Tolerance	60-180	>= 300	-
0° to 90°	65	300	365
90° to 180°	63	301	364
180° to 270°	63	300	363
270° to 360°	60	300	360

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

Figure	Photograph Description	Page
A-1	Left front $\frac{3}{4}$, as delivered	A-4
A-2	Right rear $\frac{3}{4}$, as delivered	A-4
A-3	Manufacturer's label	A-5
A-4	Tire placard	A-5
A-5	Pre test front view of test vehicle	A-6
A-6	Post test front view of test vehicle	A-6
A-7	Pre test left front $\frac{3}{4}$ view of test vehicle	A-7
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
A-13	Pre test rear view of test vehicle	A-10
A-14	Post test rear view of test vehicle	A-10
A-15	Pre test right rear $\frac{3}{4}$ view of test vehicle	A-11
A-16	Post test right rear $\frac{3}{4}$ view of test vehicle	A-11
A-17	Pre test right side view of test vehicle	A-12
A-18	Post test right side view of test vehicle	A-12
A-19	Pre test right front $\frac{3}{4}$ view of test vehicle	A-13
A-20	Post test right front $\frac{3}{4}$ view of test vehicle	A-13
A-21	Pre test overhead view	A-14
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 driver, left side view	A-20
A-34	Post test driver, left side view	A-20
A-35	Pre test driver shoulder clearance	A-21
A-36	Post test driver shoulder clearance	A-21
A-37	Pre test driver, right side view	A-22
A-38	Post test driver, right side view	A-22
A-39	Post test driver contact locations (1)	A-23
A-40	Post test driver contact locations (2)	A-23
A-41	Pre test passenger, left side view	A-24
A-42	Post test passenger, left side view	A-24
A-43	Pre test passenger shoulder clearance	A-25
A-44	Post test passenger shoulder clearance	A-25
A-45	Pre test passenger, right side view	A-26
A-46	Post test passenger, right side view	A-26

Figure	Photograph Description	Page
A-47	Post test passenger contact locations (1)	A-27
A-49	Post test passenger contact locations (2)	A-27
A-49	Pre test front view of MDB barrier face	A-28
A-50	Post test front view of MDB barrier face	A-28
A-51	Pre test right side view of MDB barrier face	A-29
A-52	Post test right side view of MDB barrier face	A-29
A-53	Pre test left side view of MDB barrier face	A-30
A-54	Post test left side view of MDB barrier face	A-30
A-55	Pre test overhead view of MDB barrier face	A-31
A-56	Post test overhead view of MDB barrier face	A-31
A-57	FMVSS301 0 degrees	A-32
A-58	FMVSS301 90 degrees	A-32
A-59	FMVSS301 180 degrees	A-33
A-60	FMVSS301 270 degrees	A-33
A-61	FMVSS301 360 degrees	A-34
A-62	Impact	A-34



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



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

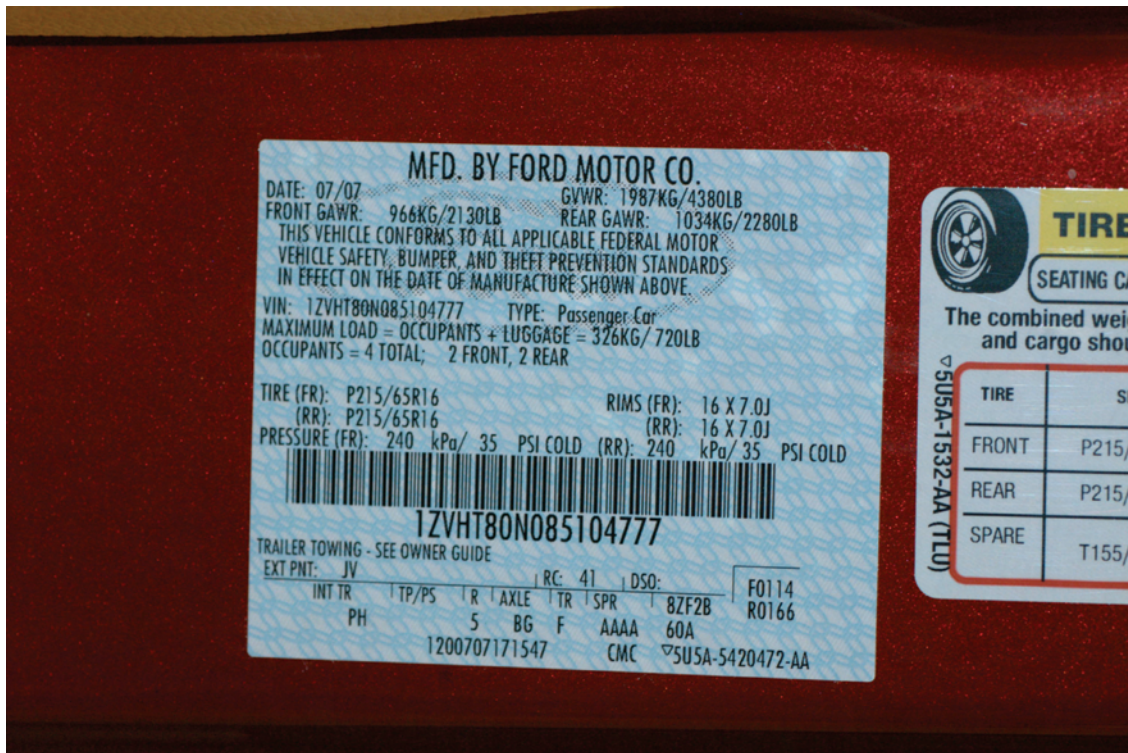


Figure A-3: Manufacturer's label



Figure A-4: Tire placard



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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

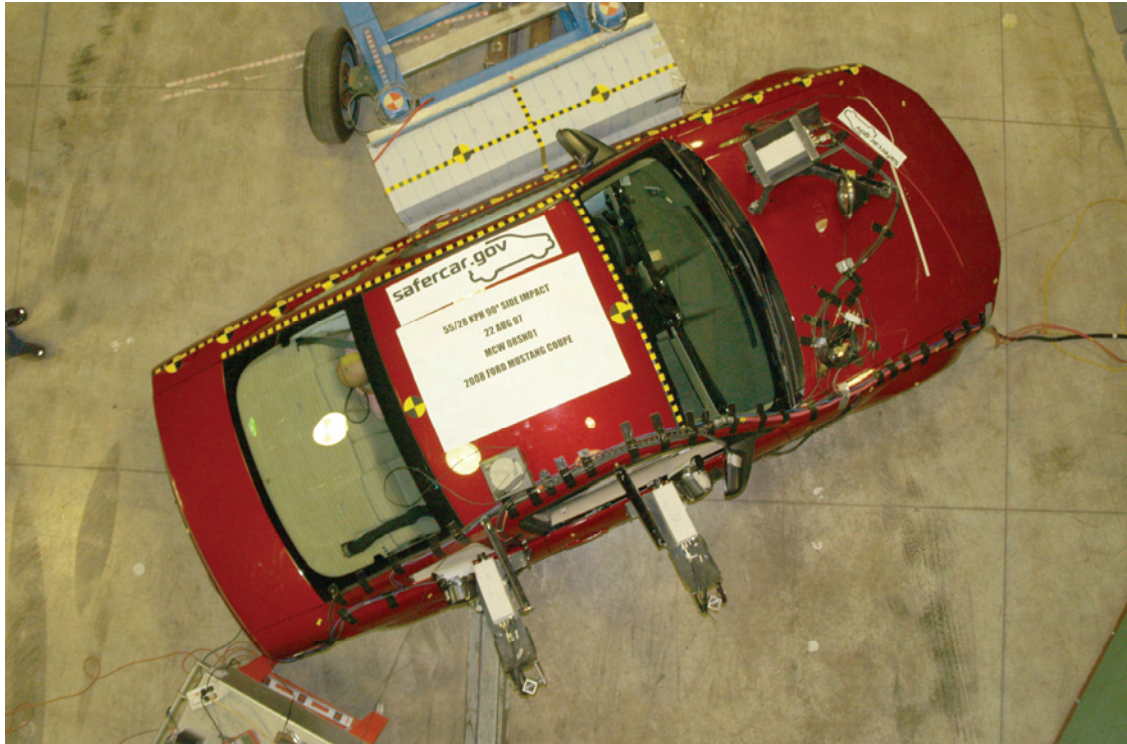


Figure A-21: Pre test overhead view



Figure A-22: Post test overhead view



Figure A-23: Pre test overhead close-up view

Figure A-24: Post test overhead close-up view



Figure A-25: Pre test impact point



Figure A-26: Post test impact point



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

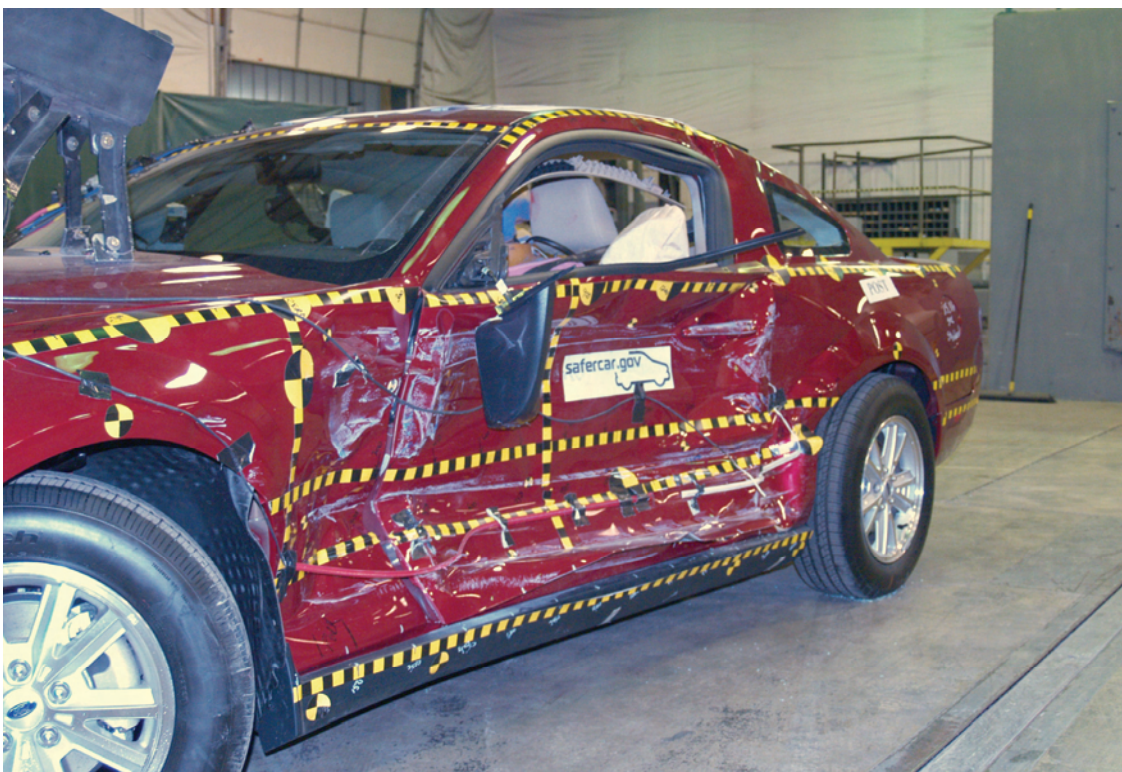


Figure A-28: Post test front 3/4 view of left side doors



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



Figure A-30: Post test rear 3/4 view of left side doors



Figure A-31: Pre test left front door



Figure A-32: Post test left front door



Figure A-33: Pre test driver left side view



Figure A-34: Post test driver left side view



Figure A-35: Pre test driver shoulder clearance



Figure A-36: Post test driver shoulder clearance



Figure A-37: Pre test driver right side view



Figure A-38: Post test driver right side view



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



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



Figure A-41: Pre test passenger left side view



Figure A-42: Post test passenger left side view



Figure A-43: Pre test passenger shoulder clearance



Figure A-44: Post test passenger shoulder clearance



Figure A-45: Pre test passenger right side view



Figure A-46: Post test passenger right side view



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



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



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

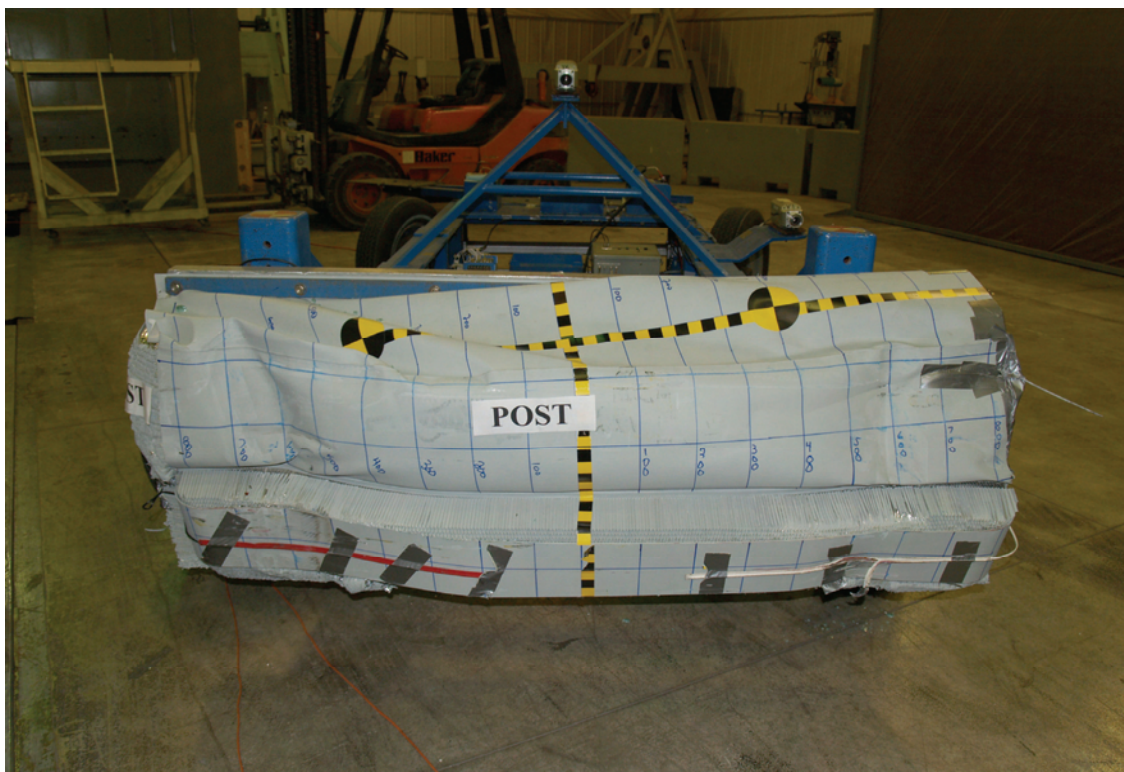


Figure A-50: Post test front view of MDB barrier face



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



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



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



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



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

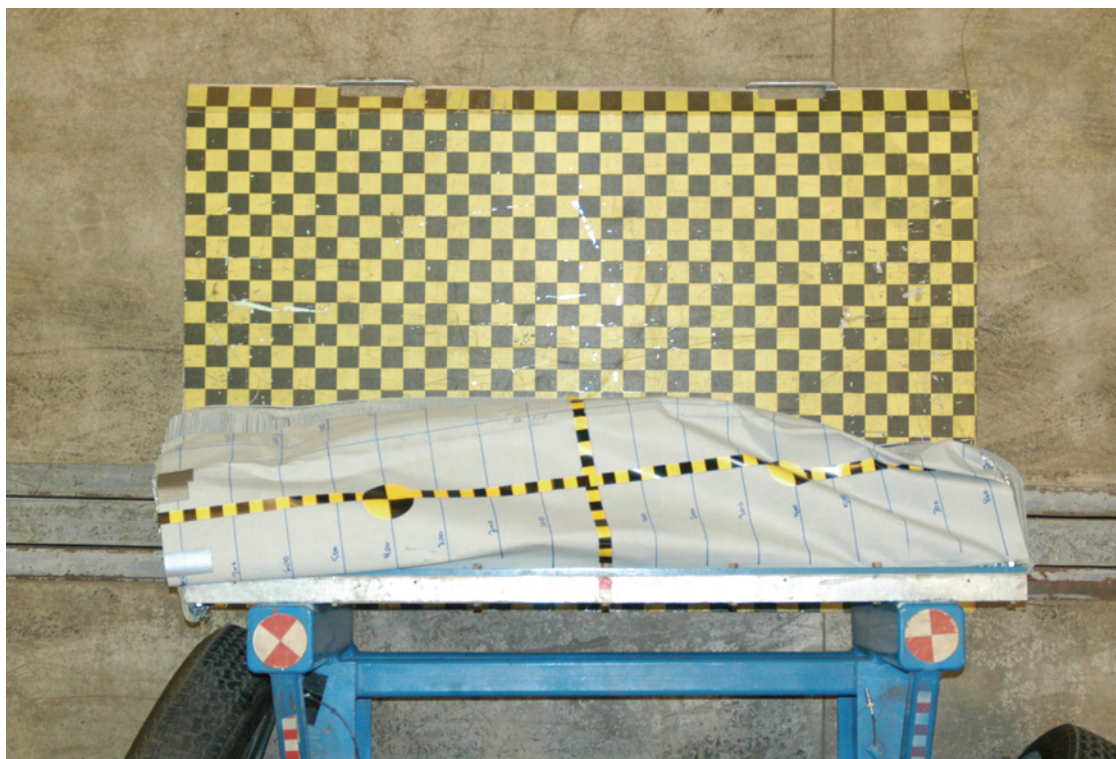


Figure A-56: Post test overhead view of MDB barrier face



Figure A-57: FMVSS 301 0 degrees

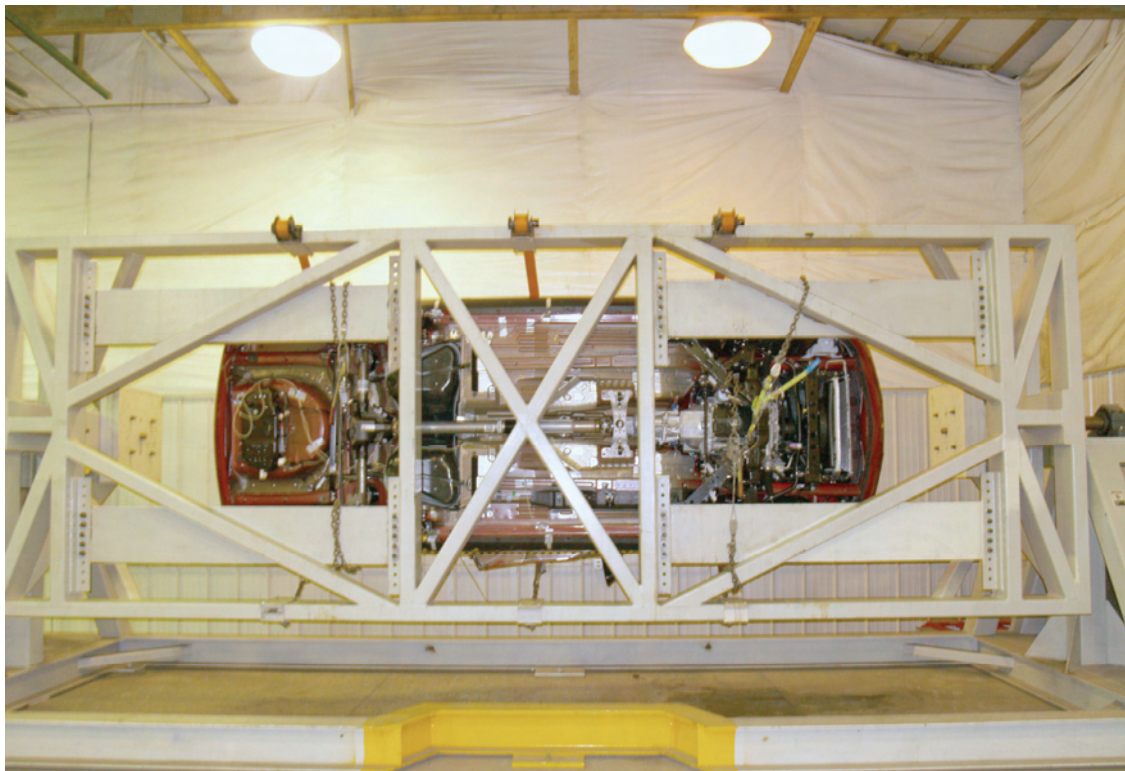


Figure A-58: FMVSS 301 90 degrees

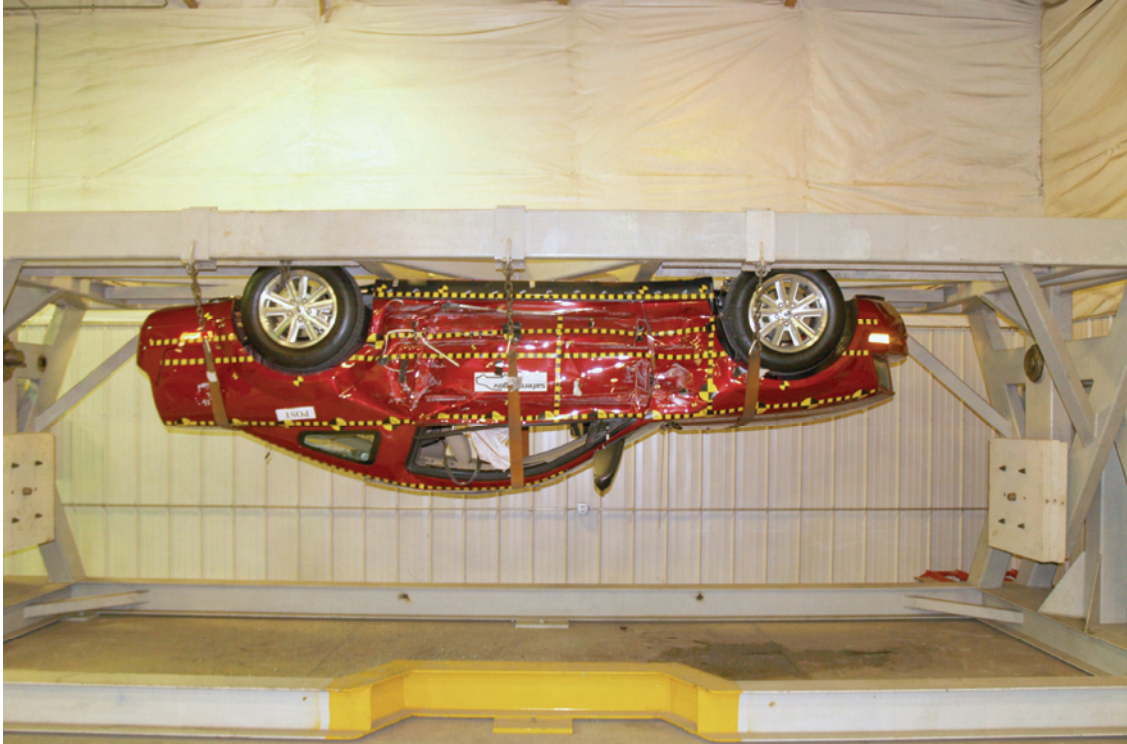


Figure A-59: FMVSS 301 180 degrees



Figure A-60: FMVSS 301 270 degrees



Figure A-61: FMVSS 301 360 degrees



Figure A-62 Impact

APPENDIX B
SID/HIII, VEHICLE AND MDB RESPONSE DATA

The following plots are provided in the test report

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

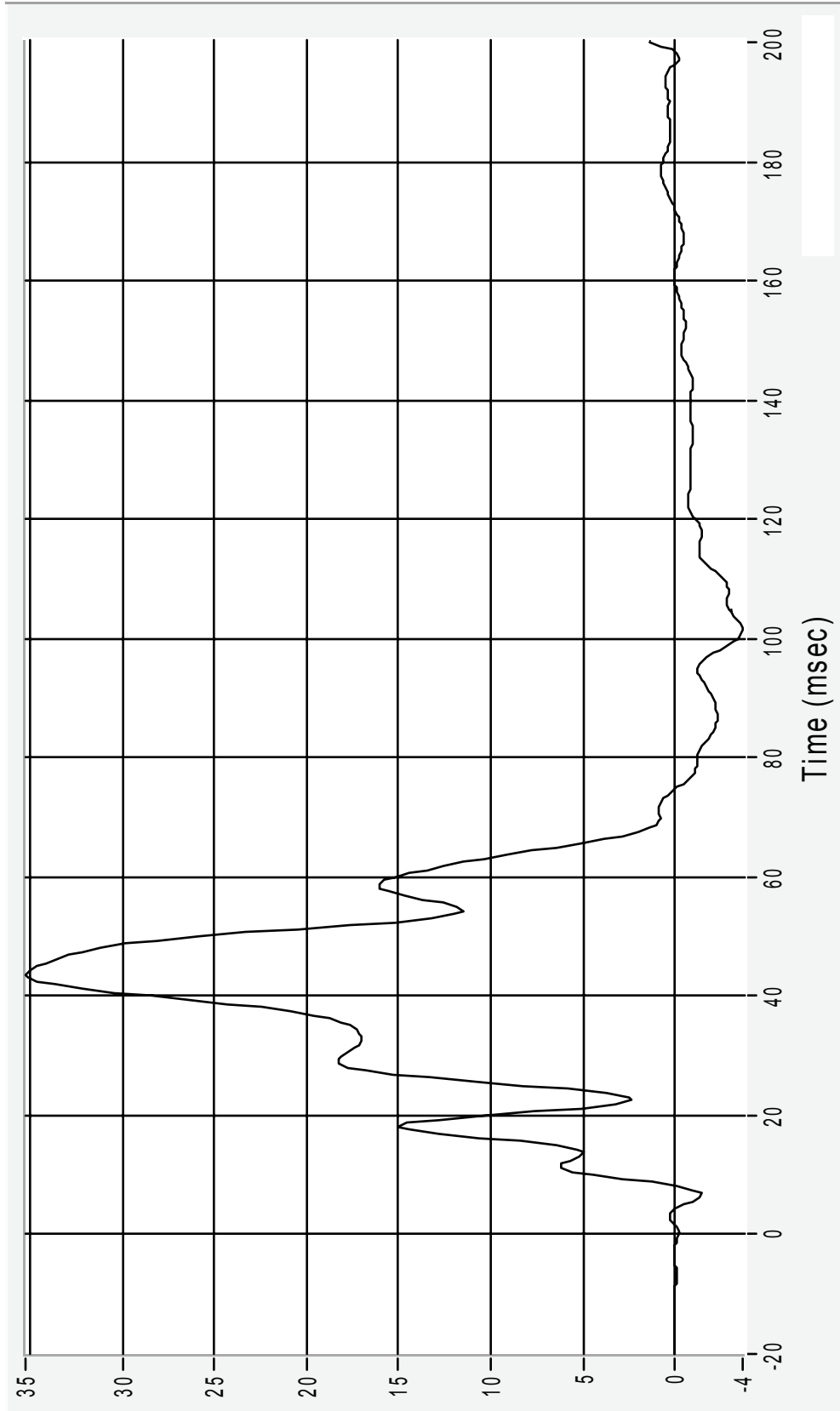
The following dummy, vehicle, and MDB response data can be found in the R&D section of the NHTSA website at: www-nrd.nhtsa.dot.gov/database/nrd-11/veh_db.html.

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

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

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

Max	35.2	G	at	43.8	msec
Min	-3.6	G	at	101.2	msec



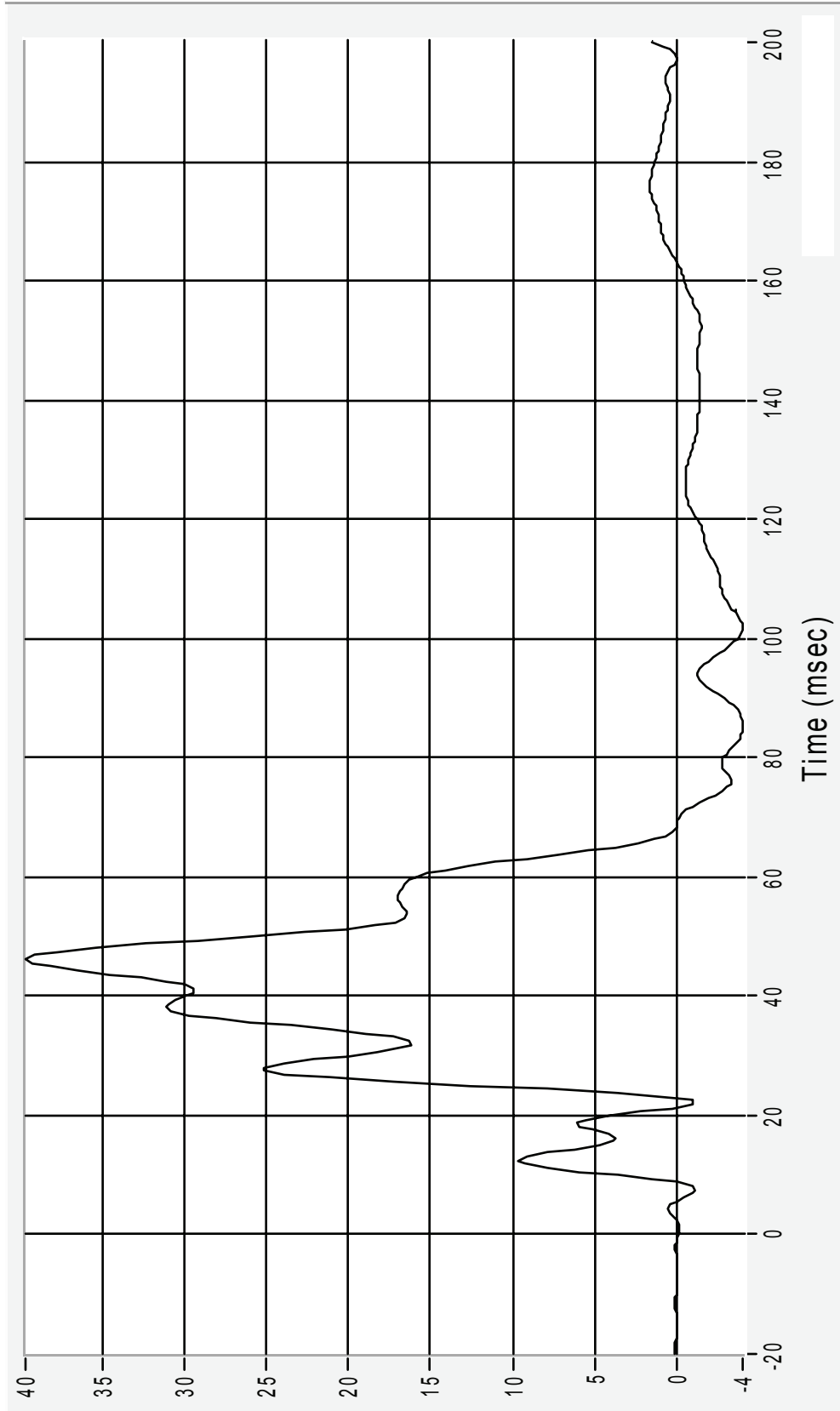
08SN01 - 2008 FORD MUSTANG 2-DOOR COUPE

22 August 2007

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

Max	39.7	G	at	46.2	msec
Min	-4.1	G	at	101.9	msec

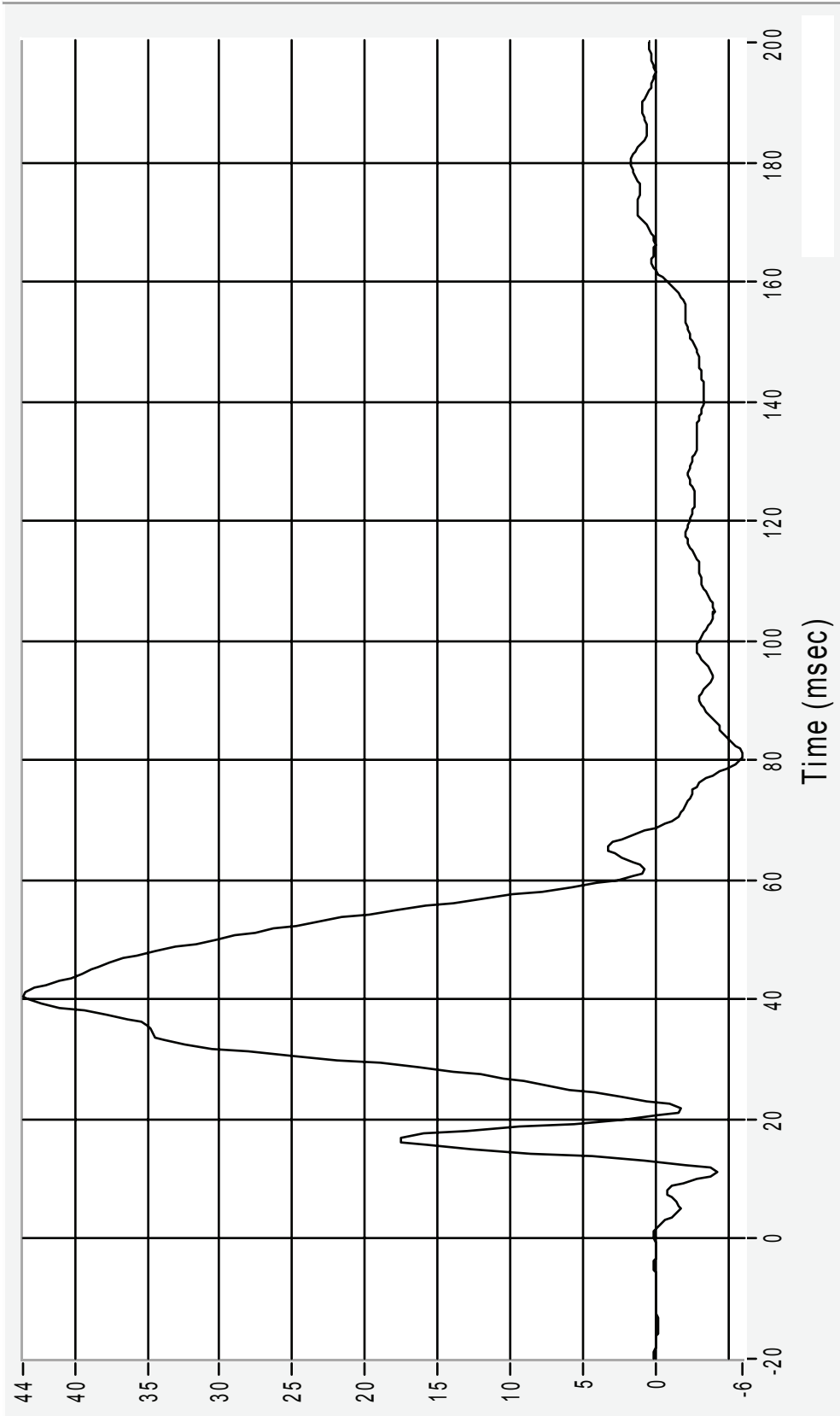


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08SN01 - 2008 FORD MUSTANG 2-DOOR COUPE
 22 August 2007

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

Max	43.5	G	at	40.6	msec
Min	-5.9	G	at	80.6	msec

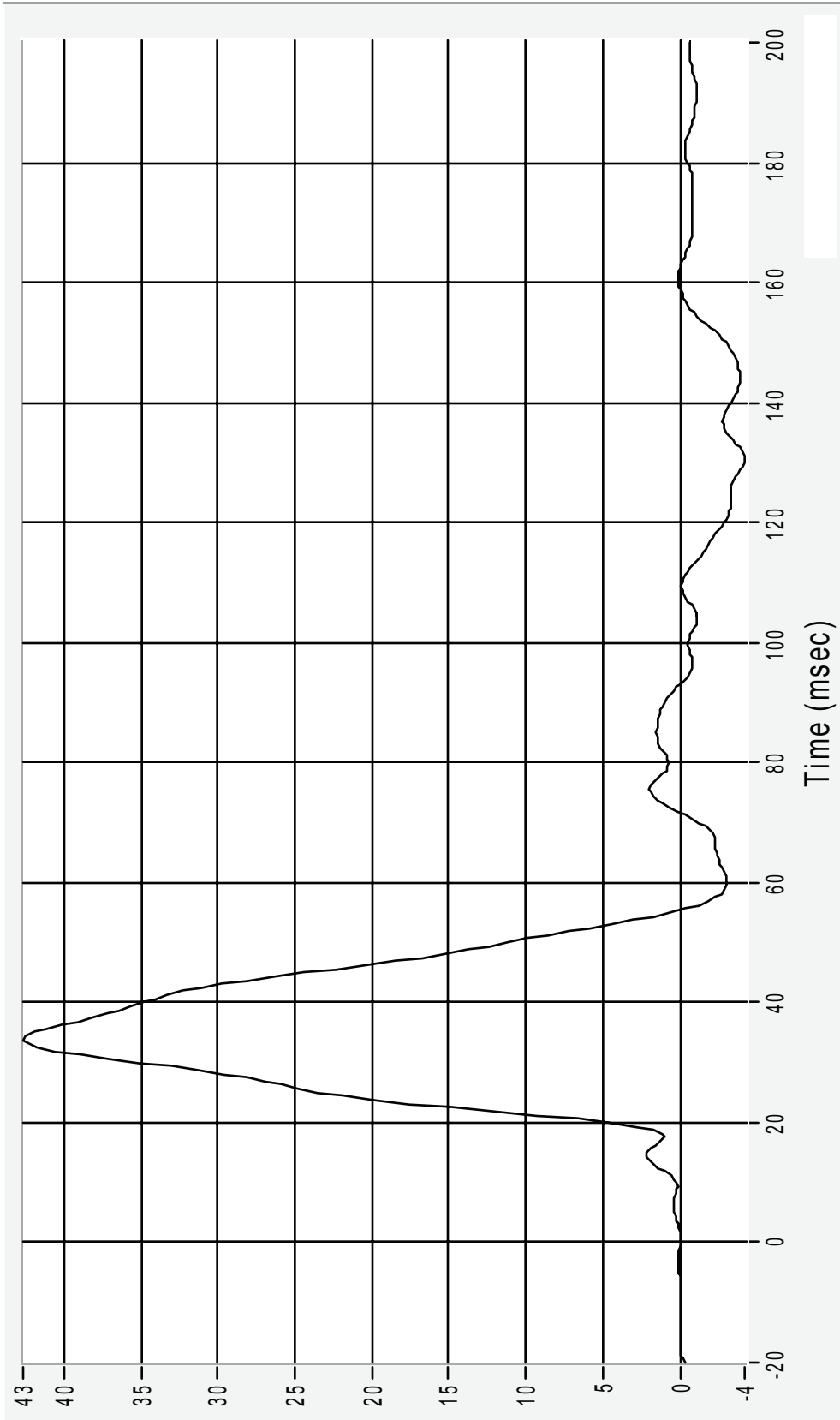


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08SN01 - 2008 FORD MUSTANG 2-DOOR COUPE
 22 August 2007

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

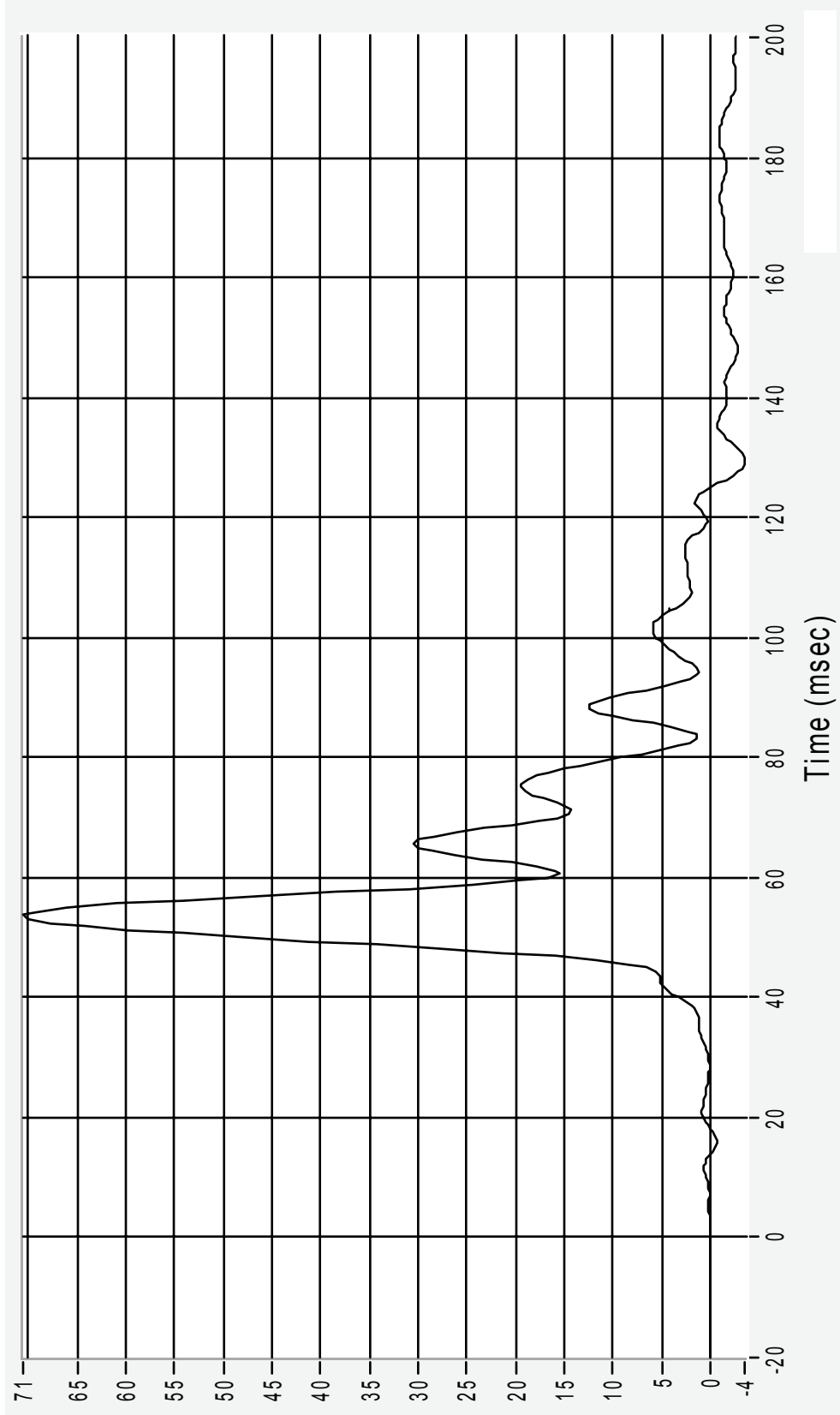
Max	42.6	G	at	33.8	msec
Min	-4.2	G	at	130.6	msec



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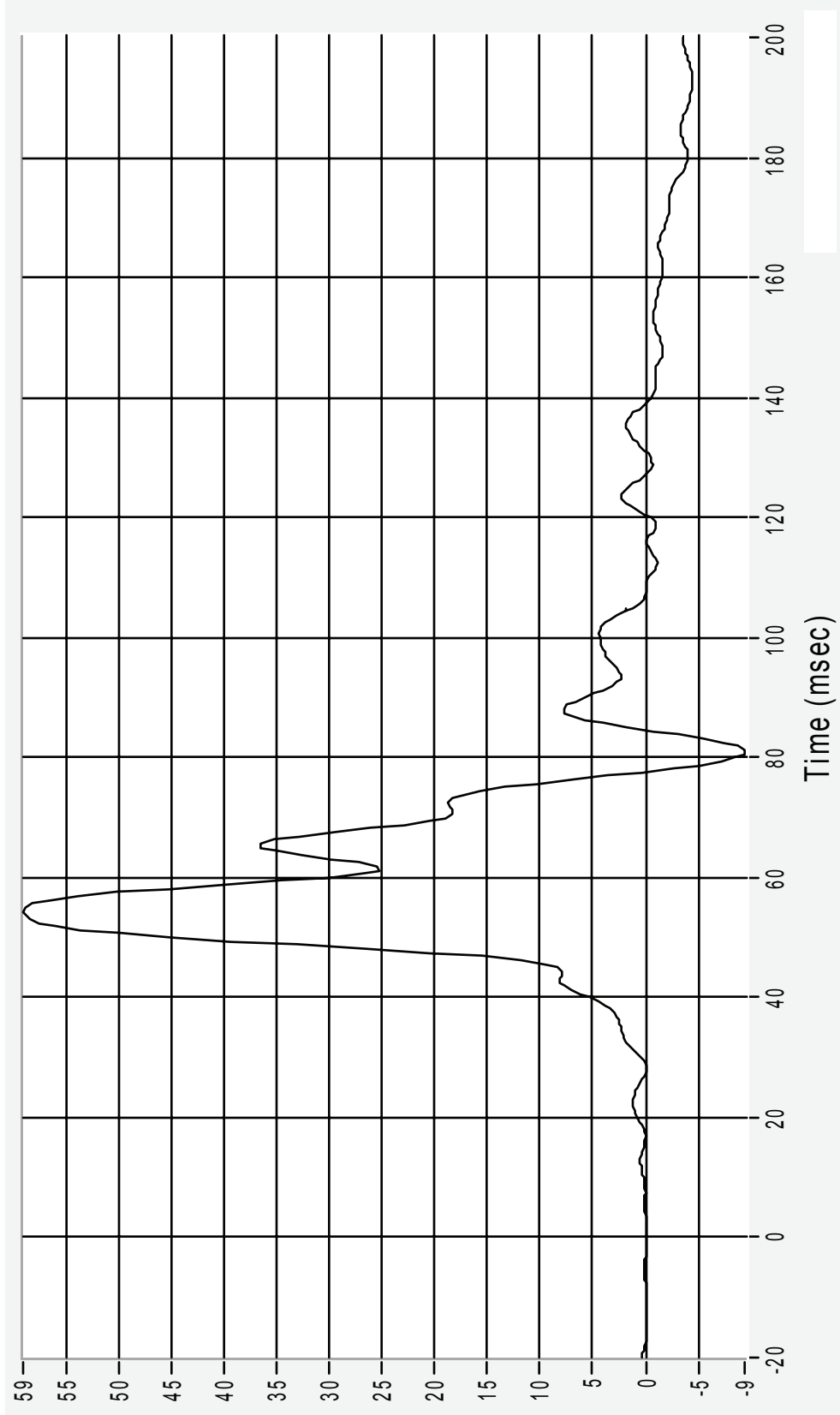
Passenger Upper Rib (Y) Acceleration
 Acceleration (G's) FIR100 Max 70.6 G at 53.8 msec
 Min -3.5 G at 129.4 msec



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 22 August 2007

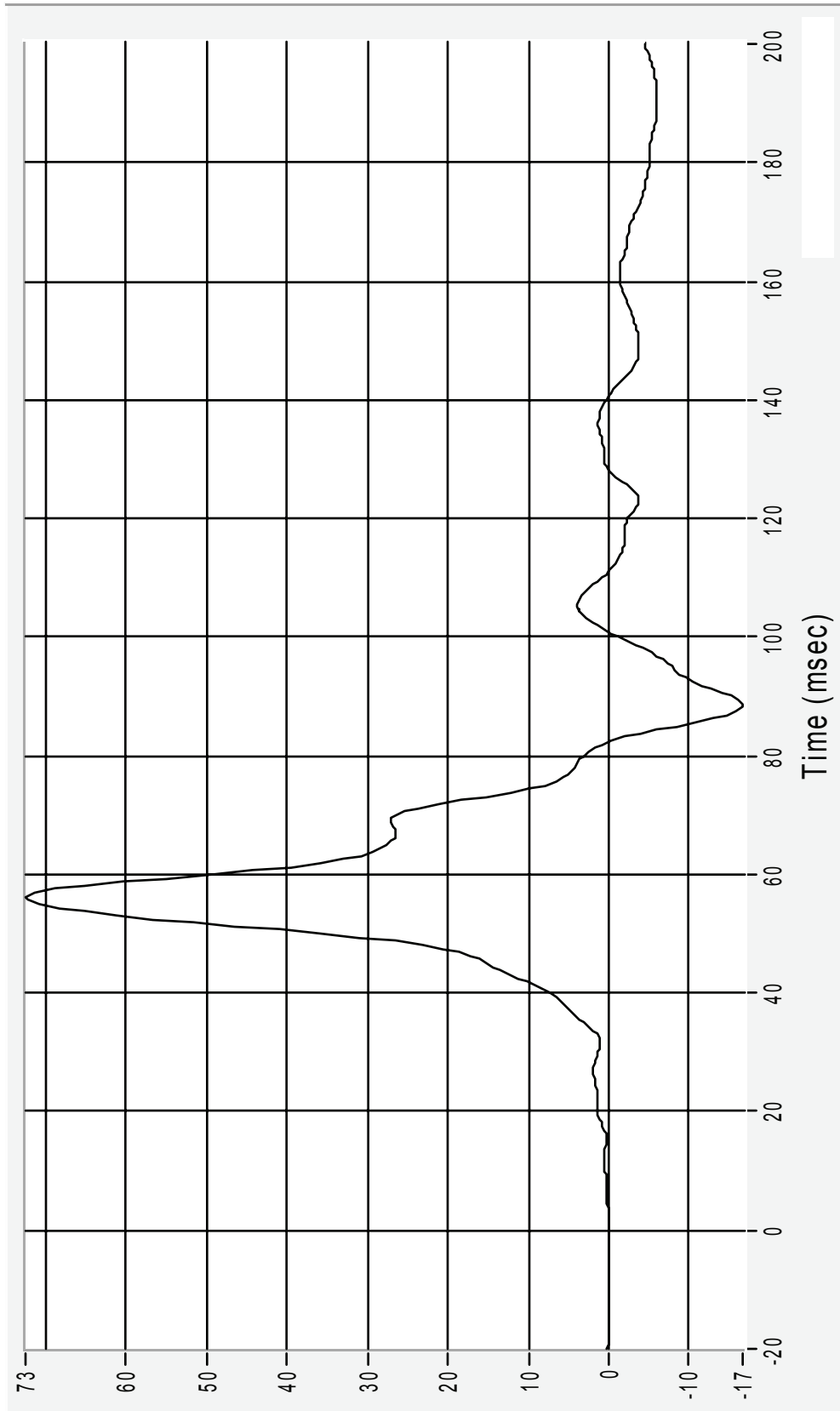
Passenger Lower Rib (Y) Acceleration
 Acceleration (G's) FIR100 Max 59.0 G at 54.4 msec
 Min -9.4 G at 81.2 msec



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08SN01 - 2008 FORD MUSTANG 2-DOOR COUPE
 22 August 2007

Passenger Lower Spine (Y) Acceleration
 Acceleration (G's) FIR100 Max 72.6 G at 56.2 msec
 Min -16.7 G at 88.8 msec

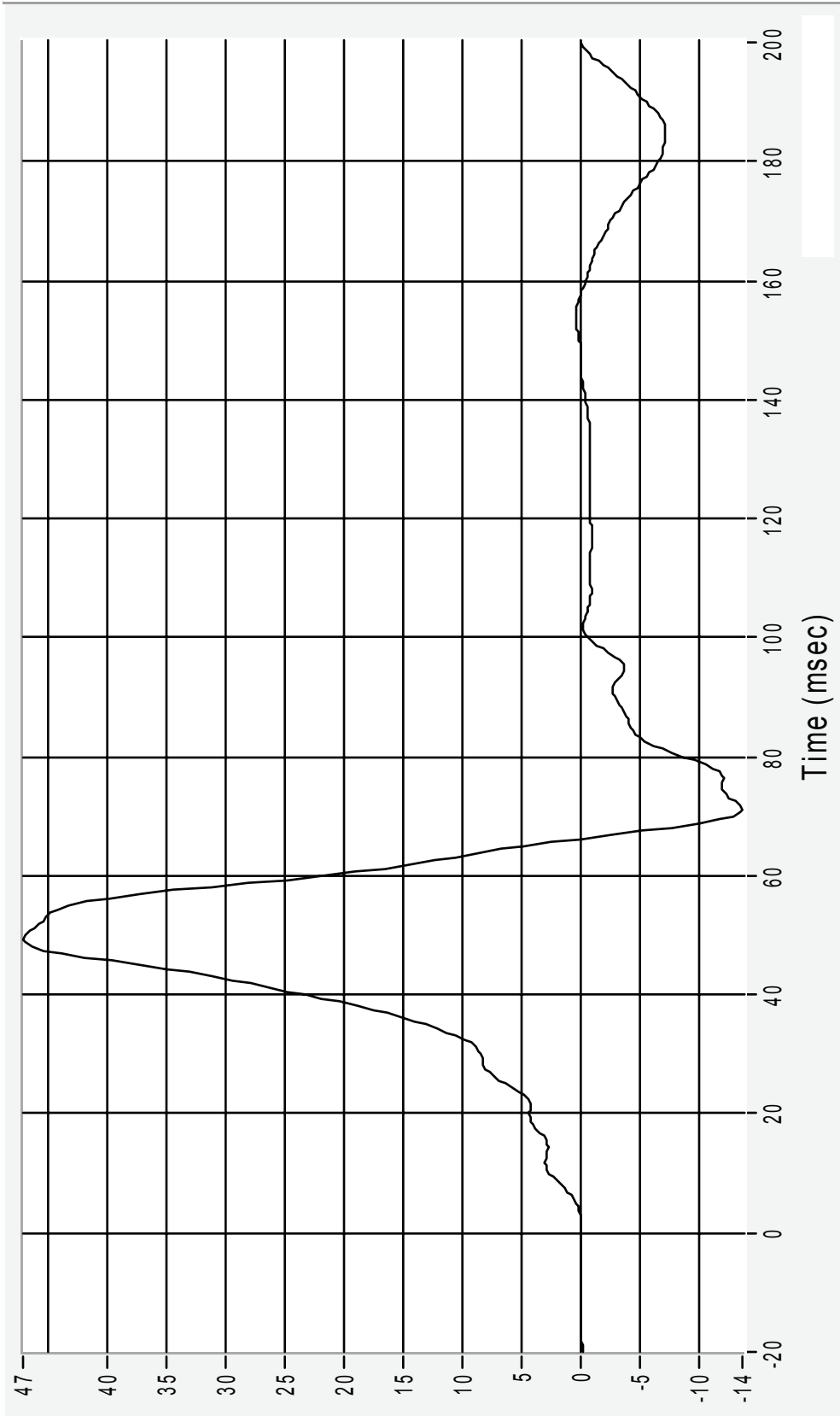


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08SN01 - 2008 FORD MUSTANG 2-DOOR COUPE
 22 August 2007

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

Max	47.2	G	at	49.4	msec
Min	-13.7	G	at	71.2	msec



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08SN01 - 2008 FORD MUSTANG 2-DOOR COUPE
 22 August 2007

APPENDIX C
DUMMY CALIBRATION DATA

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

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial Number 056Test Sequences 1 and 2

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

SID Serial Number 058Test Sequences 1 and 2

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

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

TEST PARAMETER	SPEC	SID HIII/056		SID HIII/058	
		PRE	POST	PRE	POST
MEASUREMENTS					
Date	-	02Aug07	27Aug07	02Aug07	04Sept07
Sequential Test Number	-	1	2	1	2
Temperature (°C)	18.9-25.5	21.6	20.7	21.5	20.3
Relative Humidity (%)	10-70	39.9	45.8	39.7	50.4
SH – Seated Height (mm)	889-909	906	908	909	909
RH – Rib Height (mm)	501-521	504	502	509	517
HP – Hip Pivot Height (mm)	99	99/99	99/99	99/99	99/99
RD – Rib From Back Line (mm)	229-241	229	229	230	229
KH – Knee Pivot from Back Line (mm)	511-526	523/524	526/526	521/522	525/520
KV – Knee Pivot to Floor (mm)	490-505	497/495	503/494	503/502	500/500
HW – Hip Width (mm)	356-391	361	360	361	356
THORAX IMPACTS					
Date	-	03Aug07	27Aug07	06Aug07	04Sept07
Sequential Test Number	-	1	2	1	2
Temperature (°C)	18.9-25.5	21.3	20.5	20.5	21.9
Relative Humidity (%)	10-70	37.9	48.2	39.7	56.7
Probe Speed (m/s)	4.21-4.33	4.27	4.27	4.23	4.23
Upper Rib Acceleration (G)	37-46	43.5	42.1	45.4	43.8
Lower Rib Acceleration (G)	37-46	41.1	41.4	41.0	37.7
Lower Spine Acceleration (G)	15-22	21.3	20.7	20.5	20.3
PELVIS IMPACTS					
Date	-	03Aug07	27Aug07	06Aug07	04Sept07
Sequential Test Number	-	1	2	1	2
Temperature (°C)	18.9-25.5	21.9	20.6	21.3	22.2
Relative Humidity (%)	10-70	44.5	48.6	41.4	56.9
Probe Speed (m/s)	4.21-4.33	4.27	4.28	4.25	4.23
Pelvis Acceleration (G)	40-60	43.90	49.0	40.80	43.6
THORACIC SHOCK ABSORBER					
Shock Absorber ID Number	-	1746		31310164	
Damper Setting	1-10	6		5	
Date	-	11July07		12July07	
Sequential Test Number	-	1		1	
Temperature	18.9-25.5	19.7		19.1	
Relative Humidity	10-70	33.7		40.5	
Probe Speed (m/s) Low	3.05	3.05		3.05	
Force (N)	836 – 1125	1082.6		901.0	
Displacement (mm)	30 – 35	30.0		30.4	
Probe Speed (m/s) Middle	4.27	4.27		4.27	
Force (N)	1730 – 2099	1746.4		1793.9	
Displacement (mm)	32 – 37	33.0		33.9	
Probe Speed (m/s) High	6.10	6.10		6.10	
Force (N)	3741 – 4448	3848.6		3833.1	
Displacement (mm)	33 - 40	35.4		36.2	

TEST PARAMETER	SPEC	SID HIII/056		SID HIII/058	
		PRE	POST	PRE	POST
ABDOMINAL COMPRESSION					
Date	-	10July07	24Aug07	10July07	29Aug07
Sequential Test Number	-	1	2	1	2
Temperature (°C)	18.9-25.5	23.0	21.6	22.2	22.2
Relative Humidity (%)	10-70	45.2	63.5	39.2	62.9
Force at 13 mm (N)	104-162	132.5	153.5	143.6	128.3
Force at 19 mm (N)	163-221	187.4	181.9	197.3	186.0
Force at 25 mm (N)	222-280	251.9	239.1	246.4	266.6
Force at 33 mm (N)	325-391	349.2	333.2	343.8	389.0
LUMBAR FLEXION					
Date	-	10July07	23Aug07	10July07	23Aug07
Sequential Test Number	-	1	2	1	2
Temperature (°C)	18.9-25.5	21.7	20.6	22.2	20.5
Relative Humidity (%)	10-70	46.4	47.3	39.2	49.3
Force at 0° (N)	0-26.7	0	20.2	0	0
Force at 0° (N)	97.8-151.2	133.4	150.3	107.1	115.7
Force at 0° (N)	151.2-204.6	176.8	155.7	160.5	173.6
Force at 0° (N)	204.6-258	243.1	220.2	221.4	219.5
Return Angle	12° Maximum	3.5	1.0	8.2	1.5
HYBRID III LATERAL NECK					
Date	-	17July07	25Aug07	24July07	27Aug07
Sequential Test Number	-	1	2	1	2
Temperature (°C)	18.9-25.5	20.1	20.6	22.6	21.7
Relative Humidity (%)	10-70	44.7	52.6	51.5	51.2
Pendulum Speed (m/s)	6.89-7.13	7.09	6.89	7.07	6.98
Pendulum Pulse 10ms (m/s)	1.96-2.55	2.22	2.18	2.08	2.02
Pendulum Pulse 20ms (m/s)	4.12-5.10	4.57	4.63	4.51	4.60
Pendulum Pulse 30ms (m/s)	5.73-7.01	6.27	6.63	6.68	6.86
Pendulum Pulse 40 –70 ms (m/s)	6.27-7.64	6.83	6.86	7.18	6.98
Max Head rotation (deg)	66-82	78.2	72.3	77.3	78.5
Head angle crosses zero (ms)	58-67	62.1	61.9	64.0	61.4
Peak Moment (Nm)	73-88	75.5	80.6	83.3	75.9
Moment crosses zero (ms)	49-63	57.2	52.6	59.1	55.0
Max rotation wrt pk. moment (ms)	2-15	6.40	6.32	3.60	4.32
HYBRID III LATERAL HEAD DROP					
Date	-	09July07	23Aug07	09July07	23Aug07
Sequential Test Number	-	1	2	1	2
Temperature (°C)	18.9-25.5	22.2	20.5	22.5	21.6
Relative Humidity (%)	10-70	36.5	47.1	35.4	58.6
Resultant Max (G)	120-150	131.0	132.7	130.7	130.4
Longituidinal Max (G)	<15	5.60	5.31	4.53	5.43

**DUMMY INSPECTION LIST
PRE AND POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

		SID H3 056		SID H3 058	
		PRE	POST	PRE	POST
	Date	22Aug07	23Aug07	22Aug07	23Aug07
	Performed By	Mike Rawski	Mike Rawski	Mike Rawski	Mike Rawski
PART	INSPECTION	RESULT	RESULT	RESULT	RESULT
Skin	Visual	Pass	Pass	Pass	Pass
Head	Visual, Ballast, Accelerometer Mount	Pass	Pass	Pass	Pass
Neck	Visual and Palpated, Cable Torque	Pass	Pass	Pass	Pass
Spine Box	Visual, Ballast, Weldment, Accelerometer Mount	Pass	Pass	Pass	Pass
Rib Cage	Visual, Palpated, Measured, Stiffness	Pass	Pass	Pass	Pass
Sternum	Visual	Pass	Pass	Pass	Pass
Lumbar Spine	Visual	Pass	Pass	Pass	Pass
Abdomen	Visual	Pass	Pass	Pass	Pass
Pelvis	Visual, Palpated, Accelerometer Mount	Pass	Pass	Pass	Pass
Upper Legs	Visual	Pass	Pass	Pass	Pass
Knees	Visual, Stops, Inserts	Pass	Pass	Pass	Pass
Lower Legs	Visual, Range of Motion	Pass	Pass	Pass	Pass
Ankles	Visual, Range of Motion	Pass	Pass	Pass	Pass
Feet	Visual, Range of Motion	Pass	Pass	Pass	Pass
Joints	1 to 2 G Range	Pass	Pass	Pass	Pass
Other		N/a	N/a	N/a	N/a