

REPORT NUMBER TR-P28001-20-NC

**NEW CAR ASSESMENT PROGRAM
FRONTAL BARRIER IMPACT TEST**

**HONDA MFG. OF ALABAMA, LLC
2009 HONDA PILOT EX 4WD
5-DOOR MPV**

NHTSA NUMBER: M95300

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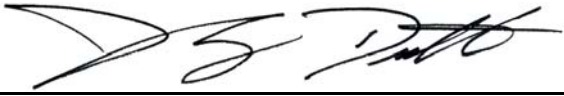
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FINAL REPORT

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16. Abstract A 35 mph (56.3 km/h) frontal barrier impact test was conducted on the subject 2009 Honda Pilot EX 4WD 5-Door MPV at KARCO Engineering, LLC, in Adelanto, CA, on June 12, 2008. This test was conducted to obtain data indicant of FMVSS 208, 212, 219 (partial), 301, and footwell intrusion performance. The impact velocity was 56.24 km/h. The ambient temperature at the barrier at the time of the crash was 31.1 degrees Celsius. The vehicle's maximum post static crush was 440 mm at the vehicle's centerline. The test vehicle was equipped with a 3-point continuous belt system and a second generation airbag at both front outboard positions. With respect to FMVSS 208 'Occupant Crash Protection', the occupant injury criteria summary is as follows:					
Measurement Description		Units	Threshold	Driver ATD	Passenger ATD
Head Injury Criteria (HIC)		N/A	1000	271.3	374.6
Max. Chest Accel. (3 msec. Chest Clip)		G's	60	41.9	44.3
Left Femur Force		Newtons	10008	-1787.8	-2666.5
Right Femur Force		Newtons	10008	-2798.8	-2931.9
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SECTION 1
PURPOSE AND SUMMARY OF TEST M95300

1.1 PURPOSE

This 35 mph (56.3 km/h) frontal barrier impact test is part of the New Car Assessment Program (NCAP) sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-06-D-00027. The purpose of this test was to obtain vehicle crashworthiness and occupant restraint system performance data for an impact speed in excess of the current 30 mph (48.3 km/h) requirements.

The 35 mph (56.3 km/h) frontal barrier impact test was conducted in accordance with the Office of Crashworthiness Standards (OCS) New Car Assessment Program (NCAP) Laboratory Indicant Test Procedure, dated July 2005. Data was obtained indicant of FMVSS 208 "Occupant Crash Protection", FMVSS 212, "Windshield Retention", FMVSS 219, "Windshield Zone Intrusion (Partial)", and FMVSS 301 "Fuel System Integrity", performance. Procedures for receiving, inspection, testing and reporting of test results are described in the test procedures and are not repeated in this report.

1.2 SUMMARY

A load cell barrier consisting of 36 load cells was impacted by a 2009 Honda Pilot EX 4WD 5-Door MPV at a velocity of 56.24 km/h. The test was performed at KARCO Engineering, LLC on June 12, 2008

Three (3) real-time and fourteen (14) high-speed cameras were used to document the frontal barrier impact event. Camera locations and other pertinent camera information can be found in Data Sheet number 14 (page number 24) of this report.

Two Part 572E, 50th percentile male anthropomorphic test devices (ATDs), were placed in the driver and right-front passenger seating positions according to dummy placement instructions specified in the Laboratory Indicant Test Procedure.

Both ATDs were fully instrumented with head (primary and redundant), chest (primary and redundant) and pelvis triaxial accelerometers, chest displacement potentiometers, six-axis upper neck transducers, right/left femur load cells, and lower leg instrumentation. Seat belt load cells were placed on the driver's and passenger's lap and shoulder belts to measure dummy torso and pelvic section loading. Shoulder belt spool-off was measured for the driver and passenger dummies. The driver (position 1) ATD (Serial No.034) and the right-front passenger (position 2) ATD (Serial No. 035) were calibrated one test prior to this test.

One hundred and thirty-two (132) channels of data were recorded using a TDAS data acquisition system. Appendix A contains Pre and Post-Test Photographs, Appendix B contains the Dummy Response data traces, and Appendix C contains the Dummy Calibration data.

There was 100% windshield retention and no intrusion into the protected zone of the windshield during impact. There was no Stoddard solvent leakage after the event, or during any phase of the static rollover.

The maximum static crush of the vehicle was 440 mm at the vehicle's centerline. Both the driver and passenger side doors remained closed and latched during the impact event, and were operable after the impact.

The driver's visible contact points were as follows: The driver ATD's head, chest, and abdomen contacted the airbag. The head also contacted the headrest. Both knees contacted the bolster.

The passenger's visible contact points were as follows: The passenger ATD's head, chest, and abdomen contacted the airbag. The head also contacted the headrest. Both knees contacted the glovebox.

Occupant injury data is contained in table below.

OCCUPANT DATA SUMMARY

ATD Position	HIC 36	3 msec Chest Clip	Chest Defl. (mm)	Left Femur (N)	Right Femur (N)
Driver	271.3	41.9	-25.5	-1787.8	-2798.8
Passenger	374.6	44.3	-24.9	-2666.5	-2931.9

Additional data plots for this test are available in the research and development section of the NHTSA website. The website can be found at: www.NHTSA.Dot.Gov

SECTION 2

OCCUPANT AND VEHICLE INFORMATION/DATA SHEETS

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV

NHTSA No.: M95300

Test Program: NHTSA 35mph NCAP

Test Date: 6/12/08

CONVERSION FACTORS USED IN THIS REPORT*

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

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

DATA SHEET NO. 1
CRASH TEST SUMMARY

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV
 Test Program: NHTSA 35mph NCAP

NHTSA No.: M95300
 Test Date: 6/12/08

PRIMARY IMPACT DATA

Measured Parameter	Units	Value
Velocity at Impact	km/h	56.24
Test Weight	kg	2225
Impact Angle	degrees	0
Average Rebound	mm	659
Maximum Static Crush	mm	440

DOOR OPENING AND SEAT TRACK INFORMATION

Description	Driver	Passenger
Front Door Opening	Remained closed and latched, opened without tools	Remained closed and latched, opened without tools
Rear Door Opening	Remained closed and latched, opened without tools	Remained closed and latched, opened without tools
Seat Track Shift (mm)	None	None
Seatback Failure	No	No

TEST DUMMY INFORMATION

Description	Driver	Passenger
Dummy Type/Serial No.	50% Male Hybrid III No.034	50% Male Hybrid III No. 035
Head Contact	Airbag, Headrest	Airbag, Headrest
Chest Contact	Airbag	Airbag
Abdomen Contact	Airbag	Airbag
Left Knee Contact	Bolster	Glovebox
Right Knee Contact	Bolster	Glovebox

MOVIE COVERAGE

Cameras	Standard	Additional
High Speed	16	0
Real Time	1	2
Total	15	2

DATA CHANNELS

Driver ATD Sensors	40
Passenger ATD Sensors	40
Belt Assessment Sensors	8
Vehicle Structure Accelerometers	8
Rigid Barrier Load Cells	36
Total	132

DATA SHEET NO. 2**GENERAL TEST AND VEHICLE PARAMETER DATA**Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPVNHTSA No.: M95300Test Program: NHTSA 35mph NCAPTest Date: 6/12/08**TEST VEHICLE INFORMATION AND OPTIONS**

NHTSA No.	M95300
Make	Honda
Model	Pilot EX 4WD
Body Style	5-Door MPV
VIN No.	5FNYP48479B000835
Color	Dark Grey
Delivery Date	05/17/07
Odometer (Miles)	5.1
Dealer	Valley Hi Honda
Transmission	5-Speed Automatic
Final Drive	4WD
Type/No. of Cylinders	V6
Engine Displ. (L)	3.5
Engine Placement	Transverse
Roof Rack	Yes
Sunroof/T-top	No
Tinted Glass	Yes
Traction Control	Yes
Power Brakes	Yes
Front Disc	Yes
Rear Disc	Yes

Anti-Lock Brakes	Yes
All Wheel Drive	Yes
Power Steering	Yes
Driver Front Airbag	Yes
Driver Side Torso Airbag	Yes
Driver Side Head Airbag	No
Driver Curtain Airbag	Yes
Pass. Front Airbag	Yes
Pass. Side Torso Airbag	Yes
Pass. Head Airbag	No
Pass. Curtain Airbag	Yes
Pre-Tensioners	Yes
Load Limiters	Yes
Bucket Seats	Yes
Air Conditioning	Yes
AM/FM CD	Yes
Tilt Steering	Yes
Automatic Door Locks	Yes
Power Windows	Yes
Power Seats	No
Other	N/A

Does the Owner's Manual provide instructions to turn off automatic door locks?

Yes

DATA FROM MANUFACTURER'S LABEL

Manufactured By	HONDA MFG. OF ALABAMA, LLC
Date of Manufacture	Apr-08

GVWR (kg)	2765
GAWR Front (kg)	1325
GAWR Rear (kg)	1525

VEHICLE SEATING CAPACITY AND WEIGHT INFORMATION

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bench	Bench	
Number of Occupants	2	3	3	8
Capacity Weight (VCW) (kg)				600
Cargo Weight (RCLW) (kg)				55

DATA SHEET NO. 2...(CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

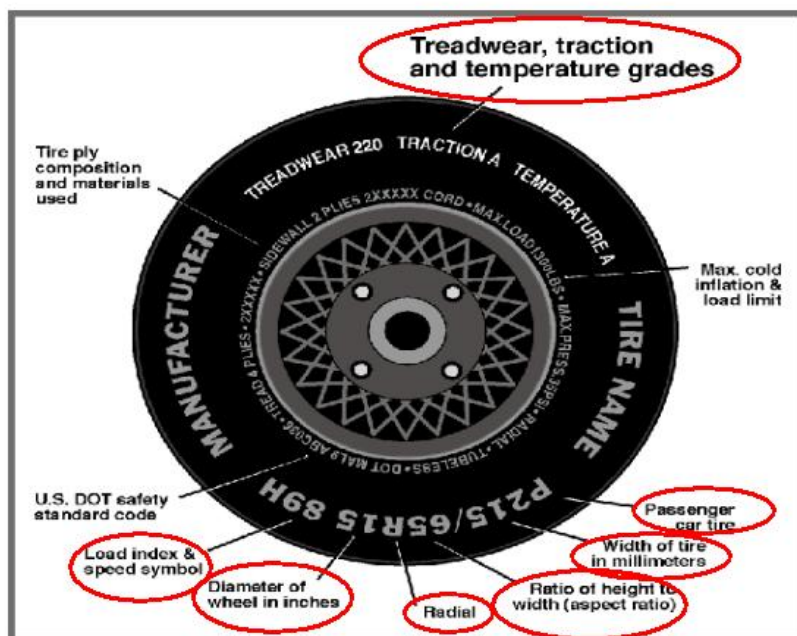
Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV

NHTSA No.: M95300

Test Program: NHTSA 35mph NCAP

Test Date: 6/12/08

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



TIRE INFORMATION

Measured Parameter	Front	Rear
Max. Tire Pressure (kPa)	357	357
Cold Tire Pressure (kPa)	220	220
Recommended Tire Size	P245/65R17	P245/65R17
Tire Size on Vehicle	P245/65R17	P245/65R17
Tire Manufacturer	Goodyear	Goodyear
Treadwear	540	540
Traction	A	A
Temperature Grades	B	B
Tire Plies - Sidewall	2 Ply Polyester	2 Ply Polyester
Tire Plies - Body	2 Polyester + 2 Steel + 1 Nylon	2 Polyester + 2 Steel + 1 Nylon
Load Index/Speed Symbol	105T	105T
Tire Material	Polyester, Steel, Nylon	Polyester, Steel, Nylon
DOT Safety Code Right	4B8T 011R 1008	4B8T 011R 1008
DOT Safety Code Left	4B8T 011R 1008	4B8T 011R 1008

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Date: 6/12/08

DATA SHEET NO. 3
POST-TEST IMPACT DATA

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV

NHTSA No.: M95300

Test Program: NHTSA 35mph NCAP

Test Date: 6/12/08

SPEED TRAP DATA

Measured Paramater	Units	Requirement	Value
Trap No. 1 Velocity	km/h	55.1 to 57.12	56.24
Trap No. 2 Velocity	km/h	55.1 to 57.12	56.23

VEHICLE STATIC CRUSH

Measured Parameter	Units	Pre-Test	Post-Test	Difference
Left Side	mm	4604	4419	185
Center	mm	4754	4314	440
Right Side	mm	4604	4294	310

VEHICLE REBOUND FROM BARRIER

Measured Paramater	Units	Value
Left Side	mm	665
Center	mm	637
Right Side	mm	675
Average	mm	659

DATA SHEET NO. 4

TEST VEHICLE INFORMATION

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV

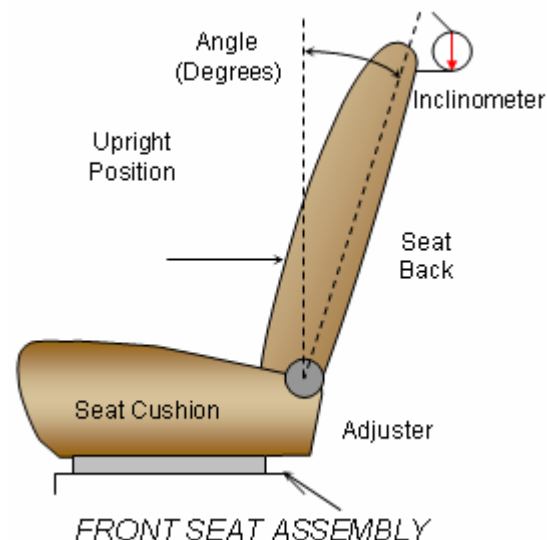
NHTSA No.: M95300

Test Program: NHTSA 35mph NCAP

Test Date: 6/12/08

NOMINAL DESIGN RIDING POSITION

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



SEAT BACK ANGLES

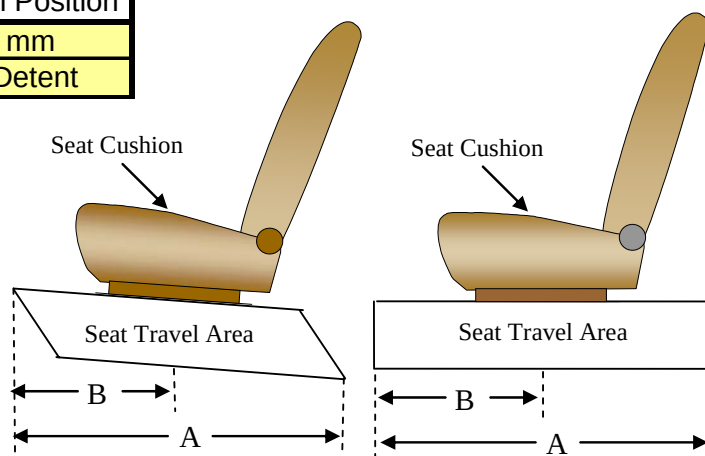
Position	Degrees
Driver w/ Seated Dummy	12.1 @ Headrest
Passenger w/ Seated Dummy	12.1 @ Headrest

SEAT FORE/AFT POSITIONS

The total seat travel was measured from forward most position to rearmost position. The seat was set at the longitudinal mid position. There were vertical adjustments on the driver seat that was equipped with the vehicle. There were no adjustments on the passenger seat. The driver seat was placed in the lowermost position.

SEAT FORE/AFT POSITIONING

Position	Total Fore/Aft Travel	Placed in Position
Driver Seat	291 mm	145 mm
Passenger Seat	25 Detents	13th Detent



SEAT BELT ANCHORAGE

Position number one (1) is the uppermost position.

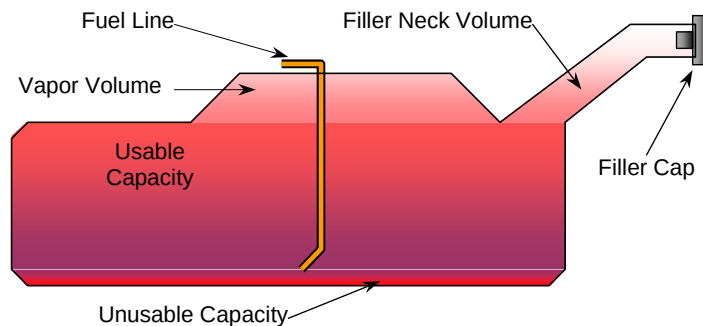
SEAT BELT ANCHORAGE POSITIONING

	Total Number of Positions	Placed in Position
Driver Seat	4	1
Passenger Seat	4	1

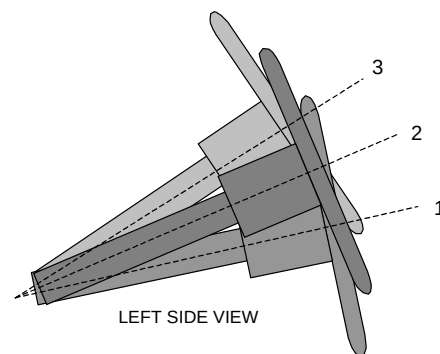
DATA SHEET NO. 4...(CONTINUED)**TEST VEHICLE INFORMATION**Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPVNHTSA No.: M95300Test Program: NHTSA 35mph NCAPTest Date: 6/12/08**FUEL TANK CAPACITY**

	Liters
Usable Capacity of Standard Tank	79.49
Usable Capacity of Optional Tank	
Usable Capacity Used for FMVSS 301	73.13 to 74.72
Actual Amount of Solvent Used	73.92

The test vehicle is equipped with an electric fuel pump. The fuel pump will operate for approximately two (2) seconds with the ignition in the "ON" position, after which the fuel pump automatically shuts off. The fuel filler door is located on the left rear fender. The standard fuel tank occupies the area under the rear passenger seat.

**VEHICLE FUEL TANK ASSEMBLY****STEERING COLUMN ADJUSTMENT**

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

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

	Degrees	Fore/Aft Position
Lowermost - Position No. 1	20.0	257
Geometric Center - Position No. 2	23.9	277
Uppermost - Position No. 3	27.8	298

DATA SHEET NO. 5

DUMMY POSITIONING IN VEHICLE

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV

NHTSA No.: M95300

Test Program: NHTSA 35mph NCAP

Test Date: 6/12/08

TEST DUMMY POSITION MEASUREMENTS

Code	Measurement Description	Driver		Passenger	
		Length (mm)	Angle (°)	Length (mm)	Angle (°)
WA	Windshield angle		33.0		
SWA	Steering wheel angle		65.0		
SCA	Steering column angle		25.0		
SA	Seat Back angle		12.1 @ Headrest		12.1 @ Headrest
HZ	Head to roof (Z)	295	90.0	260	90.0
HH	Head to header	509		485	
HW	Head to windshield	753		670	
HR	Head to side header (Y)	355		326	
NR	Nost to rim	408	9.0		
CD	Chest to dash	572		606	
CS	Chest to steering hub	343			
RA	Rim to abdomen	198			
KDL	Left knee to dash	155	0.0	95	
KDR	Right knee to dash	120		120	0.0
PA	Pelvic angle		22.6		23.9
TA	Tibia Angle		60.0		56.2
KK	Knee to knee	320		275	
SK	Striker to outboard knee	626	4.6	625	5.3
ST	Striker to head	536	83.3	565	76.7
SH	Striker to H-Point	287	0.0	290	0.0
SHY	Striker to H-Point (Y)	152		175	
HS	Head to side window	378		347	
HD	H-Point to door	148		160	
AD	Arm to door	135		126	

DATA SHEET NO. 5...(CONTINUED)

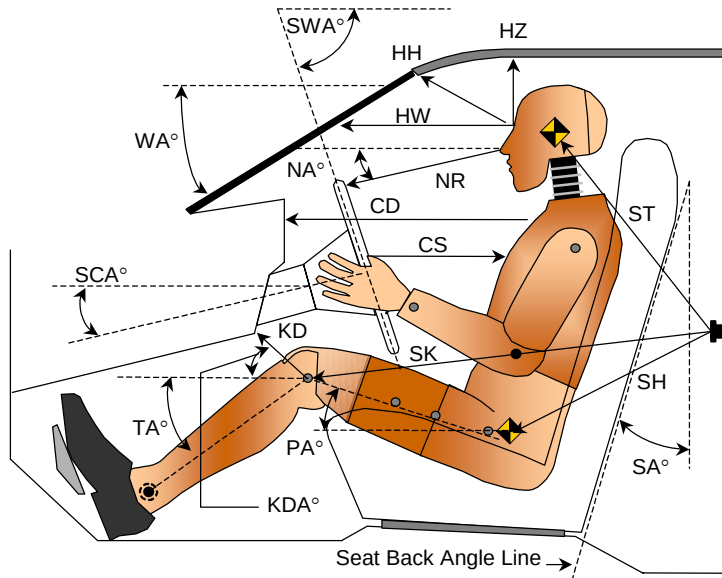
DUMMY POSITIONING IN VEHICLE

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV

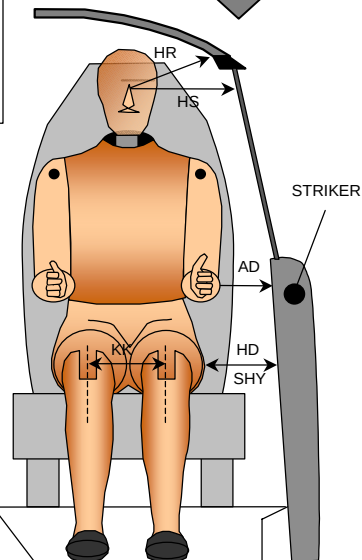
NHTSA No.: M95300

Test Program: NHTSA 35mph NCAP

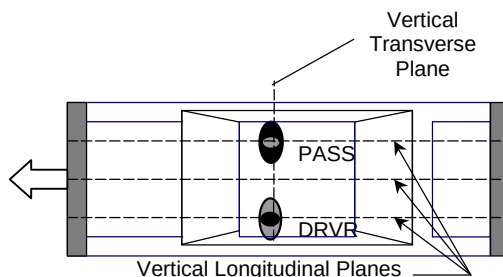
Test Date: 6/12/08



AD Arm to Door
HD H-Point to Door
HR Head to Side Header
HS Head to Side Window
KK Knee to Knee
SHY Striker to H-Point
(Y Axis)



CD Chest to Dash
CS Chest to Steering Wheel Hub
HH Head to Header
HW Head to Windshield
HZ Head to Roof
KDA Knee to Dash Angle
KDL Left Knee to Dash
KDR Right Knee to Dash
NA Nose to Rim Angle
NR Nose to Rim
PA Pelvic Angle
RA Rim to Abdomen
SA Seat Back Angle
SCA Steering Column Angle
SH Striker to H-Point
SK Striker to Knee
ST Striker to Head
SWA Steering Wheel Angle
TA Tibial Angle
WA Windshield Angle



DATA SHEET NO. 6

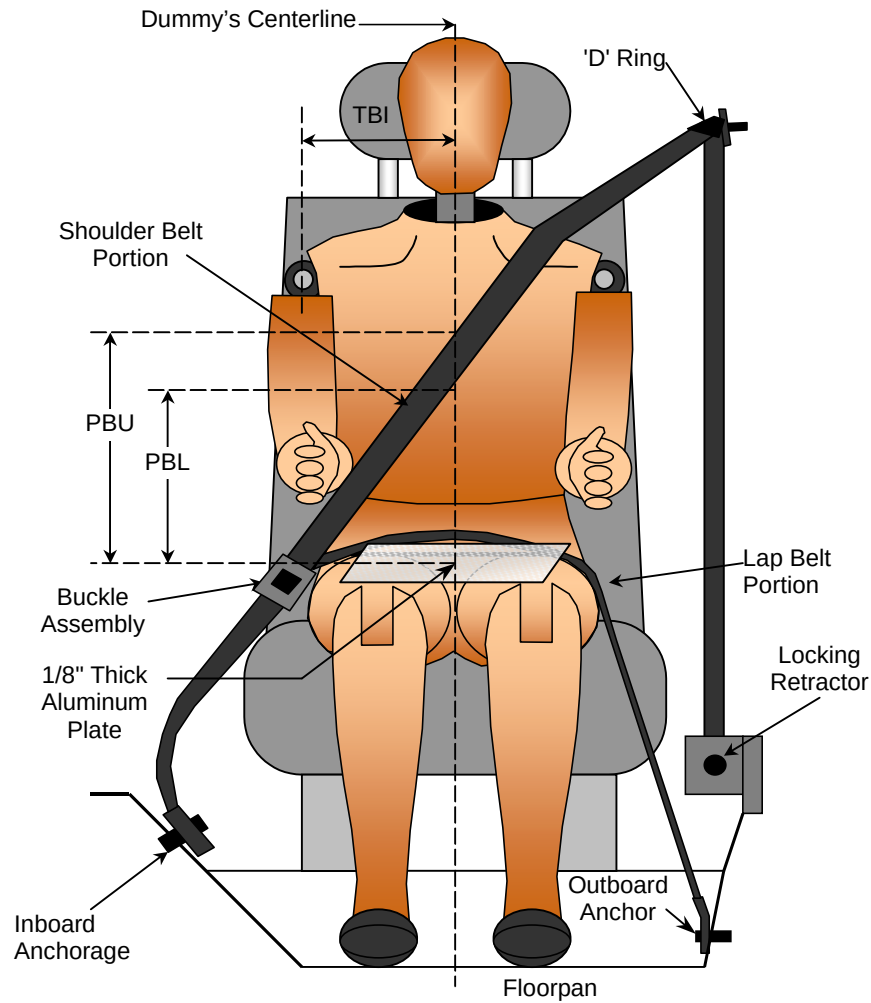
SEAT BELT POSITIONING DATA

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV

NHTSA No.: M95300

Test Program: NHTSA 35mph NCAP

Test Date: 6/12/08



SEAT BELT POSITIONING MEASUREMENTS

Measured Parameter	Units	Driver	Passenger
TBI - Dummy C/L to Lap/Shoulder Belt Intersect	mm	195	210
PBU - Top Surface of Reference to Belt Upper Edge	mm	335	295
PBL - Top Surface of Reference to Belt Lower Edge	mm	260	230
Lap Belt Tension	Newtons	10	10
Shoulder Belt Tension	N/A	Retractor	Retractor

DATA SHEET NO. 7**VEHICLE ACCELEROMETER LOCATIONS**Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPVNHTSA No.: M95300Test Program: NHTSA 35mph NCAPTest Date: 6/12/08**VEHICLE ACCELEROMETER PRE-TEST LOCATIONS**

No.	Accelerometer Location	Measurement (mm)		
		X	Y	Z
1	Left Rear X-Member	1778	-734	556
2	Right Rear X-Member	1778	734	556
3	Engine Top			
4	Engine Bottom	4214	150	220
5	Left Brake Caliper	4085	-829	357
6	Right Brake Caliper	4085	829	357
7	Instrument Panel			
8	Left Rear X-Member (Z-Axis)	1778	-734	556
9	Right Rear X-Member (Z-Axis)	1778	734	556

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

1.) Instrument Panel no longer used by NHTSA.

2.) Instrumentation not installed

DATA SHEET NO. 8**SEAT BELT ASSESSMENT TEST DATA**

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV NHTSA No.: M95300
Test Program: NHTSA 35mph NCAP Test Date: 6/12/08

SEAT BELT POSITIONING MEASUREMENTS

Measurement Description	Units	Driver	Passenger
Retractor Reel to D-Ring	mm	750	650
Shoulder Belt Length as Measured on ATD	mm	920	845
Lap Belt Length as Measured on ATD	mm	600	600
Remainder of Belt on Reel	mm	1140	1250
Total Belt Length for Continuous Webbing Systems	mm	3410	3345

SHOULDER BELT SPOOL-OFF DATA

Measurement Description	Units	Driver	Passenger
As determined mechanically	mm	220	197
As determined electronically	mm	237.3	192.7

BELT STRETCH DATA

Measurement Description	Units	Driver	Passenger
Electronically between belt load cell and D-Ring	mm/cm	*	*
Mechanically	mm/cm		

*Not used with shoulder belt pre-tensioner systems

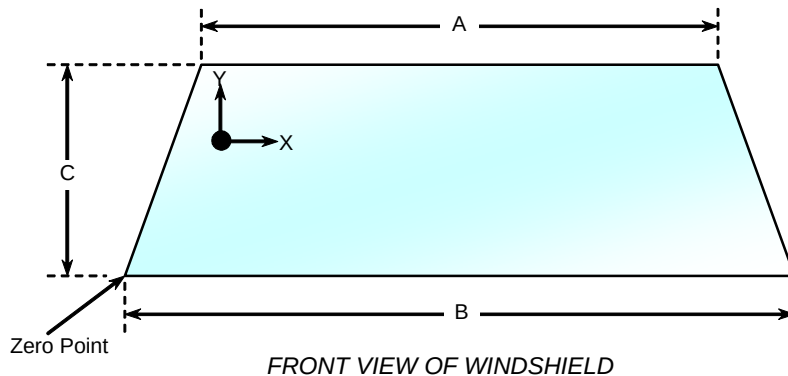
DATA SHEET NO. 9**SUMMARY OF FMVSS 212 DATA**Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPVNHTSA No.: M95300Test Program: NHTSA 35mph NCAPTest Date: 6/12/08

Windshield Mounting Details: Windshield glass is secured to the vehicle frame with rubber cement type adhesive. Plastic molding covers the windshield periphery.

The standard requires that the post-test retention measurement be a minimum of 75 percent of the pretest total periphery measurement for vehicles not equipped with occupant passive restraints and 50 percent for each side of the windshield for vehicles that are equipped with occupant passive restraints.

Temperature of windshield molding during test: 31.1 °C**WINDSHIELD PERIPHERY MEASUREMENTS**

Measurement	Pre-Test (mm)	Post-Test (mm)	% of Retention
Left Side	2204	2204	100.0
Right Side	2204	2204	100.0
Total	4408	4408	100.0

**WINDSHIELD DIMENSIONS**

Item	Units	Segment Length	Molding Width
A	mm	1357	15
B	mm	1540	60
C-Left	mm	755	25
C-Right	mm	755	25

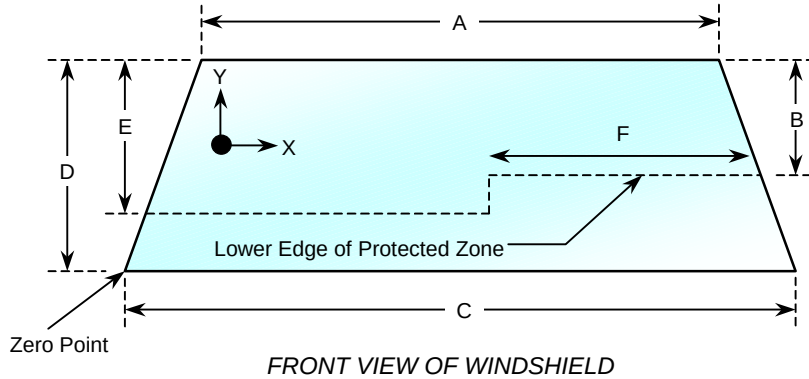
DATA SHEET NO. 10

WINDSHIELD ZONE INTRUSION FMVSS 219 DATA (PARTIAL)

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV
 Test Program: NHTSA 35mph NCAP

NHTSA No.: M95300
 Test Date: 6/12/08

WINDSHIELD AND PROTECTED ZONE



Item	Units	Value
A	mm	1357
B	mm	365
C	mm	1540
D	mm	755
E	mm	450
F	mm	468

AREA OF PROTECTED ZONE FAILURES

- A. Provide coordinates of the area that the protected zone was penetrated more than 0.25 in. by a vehicle component other than one that is normally in contact with the windshield.

X	Y

- B. Provide coordinates of the area beneath the protected zone that the inner surface of the windshield was penetrated by a vehicle component.

X	Y

DATA SHEET NO. 11

FMVSS 301 FUEL SYSTEM INTEGRITY POST-IMPACT DATA

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV NHTSA No.: M95300
Test Program: NHTSA 35mph NCAP Test Date: 6/12/08

Test Time: 12:15 PM Temperature: 31.1 ° C

STODDARD SOLVENT SPILLAGE MEASUREMENTS

- A. From impact until vehicle motion ceases: 0
(Maximum allowable = 1 ounce)
- B. For the 5 minute period after motion ceases: 0
(Maximum allowable = 5 ounces)
- C. For the following 25 minutes: 0
(Maximum allowable = 1 oz/minute)
- D. Spillage Details: No leakage occurred

DATA SHEET NO. 12

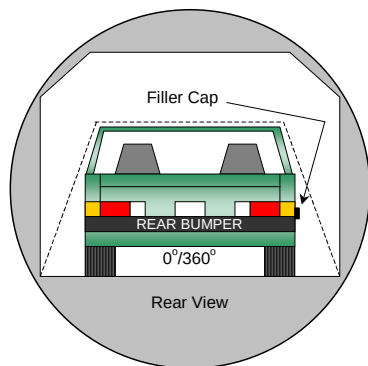
FMVSS 301 STATIC ROLLOVER DATA

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV

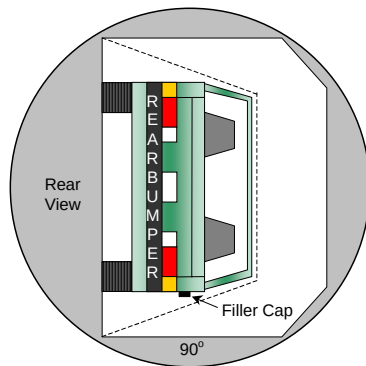
NHTSA No.: M95300

Test Program: NHTSA 35mph NCAP

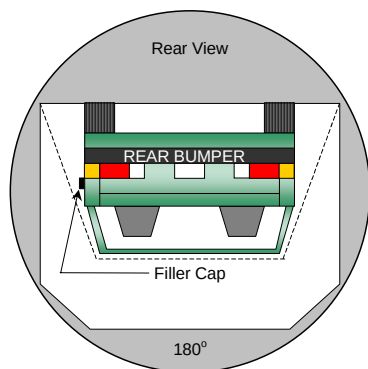
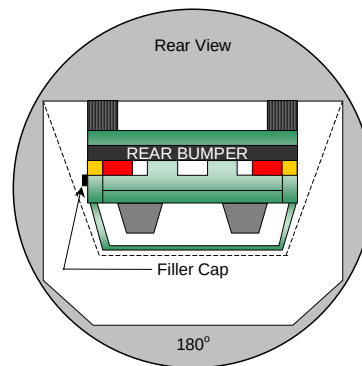
Test Date: 6/12/08



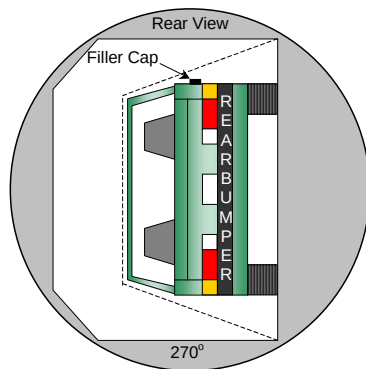
0° to 90°



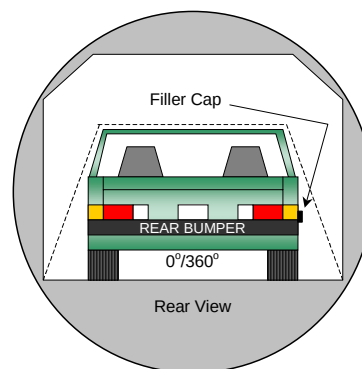
90° to 180°



180° to 270°



270° to 360°



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

DATA SHEET NO. 12...(CONTINUED)**FMVSS 301 STATIC ROLLOVER DATA**Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPVNHTSA No.: M95300Test Program: NHTSA 35mph NCAPTest Date: 6/12/08**SOLVENT COLLECTION TIME TABLE IN SECONDS**

Test Phase	Rotation Time	Hold Time	Total Time
0° to 90°	82	301	383
90° to 180°	83	302	385
180° to 270°	86	305	391
270° to 360°	85	300	385

FMVSS 301 SPILLAGE TABLE REQUIREMENT

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

ACTUAL TEST VEHICLE SOLVENT SPILLAGE TABLE (OZ)

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

SOLVENT SPILLAGE LOCATION TABLE

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

DATA SHEET NO. 13
VEHICLE MEASUREMENTS

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV
Test Program: NHTSA 35mph NCAP

NHTSA No.: M95300
Test Date: 6/12/08

VEHICLE MEASUREMENT TABLE

No.	Measurement Description	Units	Pre-Test	Post-Test	Difference
1	Length of test vehicle at centerline	mm	4754	4314	-440
2	RSOV to front of engine	mm	4214	3999	-215
3	RSOV to firewall centerline	mm	3870	3894	24
4	RSOV to upper leading edge of right door	mm	3342	3413	71
5	RSOV to upper leading edge of left door	mm	3416	3415	-1
6	RSOV to lower leading edge of right door	mm	3354	3348	-6
7	RSOV to lower leading edge of left door	mm	3345	3355	10
8	RSOV to upper trailing edge of right door	mm	2377	2367	-10
9	RSOV to upper trailing edge of left door	mm	2375	2373	-2
10	RSOV to lower trailing edge of right door	mm	2349	2340	-9
11	RSOV to lower trailing edge of left door	mm	2343	2351	8
12	RSOV to bottom of right A-pillar	mm	3368	3371	3
13	RSOV to bottom of left A-pillar	mm	3371	3371	0
14	RSOV to firewall on right side	mm	3868	3904	36
15	RSOV to firewall on left side	mm	3853	3934	81
16	RSOV to steering column hub	mm	2992	3015	23
17	Center of steering column to left A-pillar, Y	mm	435	450	15
18	Center of steering column to headlining, Z	mm	460	450	-10
19	RSOV to right side of front bumper	mm	4604	4294	-310
20	RSOV to left side of front bumper	mm	4604	4419	-185
21	Length of engine block	mm	530	530	0
RD	RSOV to right side of dash panel	mm	3250	3251	1
CD	RSOV to center of dash panel	mm	3190	3170	-20
LD	RSOV to left side of dash panel	mm	3261	3271	10

DATA SHEET NO. 13...(CONTINUED)**VEHICLE STRUCTURAL MEASUREMENTS**Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPVNHTSA No.: M95300Test Program: NHTSA 35mph NCAPTest Date: 6/12/08**VEHICLE STRUCTURAL MEASUREMENT TABLE**

No.	Measurement Description	Units	Pre-Test	Post-Test	Difference
1	Total length	mm	4754	4314	-440
2	Total width	mm	1977	1965	-12
3	Front bumper top height	mm	725	780	55
4	Front bumper bottom height	mm	456	551	95
5	Longitudinal member top height	mm	600	685	85
6	Longitudinal member bottom height	mm	506	625	119
7	Distance between longitudinal members	mm	995	1080	85
8	Longitudinal member width	mm	55	63	8
9	Engine top height	mm	920	1010	90
10	Engine bottom height	mm	245	216	-29
11	Engine and gearbox width	mm	530	530	0
12	Front bumper-engine distance	mm	529	310	-219
13	Front shock absorber height	mm	1048	1140	92
14	Front hood leading edge height	mm	1070	1155	85
15	Distance between front shock absorbers	mm	1250	1220	-30
16	Front bumper-front axle distance	mm	942	580	-362
17	Front axle to A-pillar distance	mm	472	420	-52
18	A Pillar to B Pillar distance	mm	962	961	-1
19	B Pillar to rear axle distance	mm	1218	1220	2
20	B Pillar to C Pillar distance	mm	916	910	-6
21	Roof sill bottom height	mm	1576	1635	59
22	Roof sill top height	mm	1713	1727	14
23	Floor sill bottom height	mm	451	460	9
24	Floor sill top height	mm	518	530	12

DATA SHEET NO. 13...(CONTINUED)

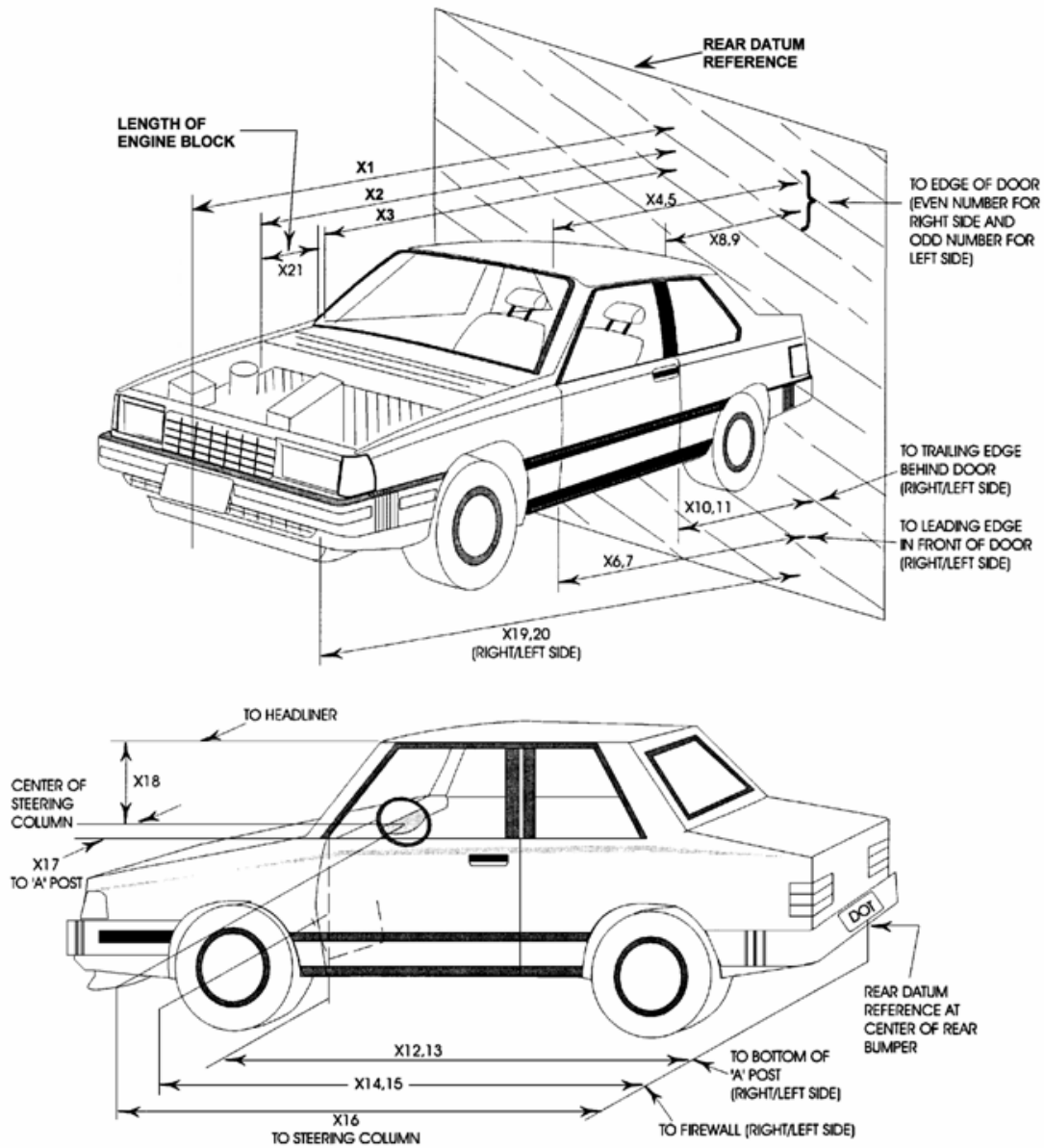
VEHICLE MEASUREMENTS

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV

NHTSA No.: M95300

Test Program: NHTSA 35mph NCAP

Test Date: 6/12/08



DATA SHEET NO. 14**CAMERA LOCATIONS**Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPVNHTSA No.: M95300Test Program: NHTSA 35mph NCAPTest Date: 6/12/08**VEHICLE CAMERA MEASUREMENT TABLE**

No.	Camera View	Location			Angle (deg)	Film Plane to Head	Lens (mm)	Speed (fps)
		X	Y	Z				
1	Real Time Camera (Panning)	-11412	-8150	-1484	0			30
2	Overall Left Side	-2354	-7388	-1270	0	8105	20	1000
3	Closeup Left Side	-1661	-6014	-1252	0	7844	50	1000
4	Driver and Interior View	-6696	-5987	-1071	-17	15570	ZOOM	1000
5	Steering Column (Bottom)	-1972	-8184	-2879	-13	9453	35	1000
6	Steering Column (Top)	-1966	-8141	-3258	-13	9549	35	1000
7	Overall Right Side	-2326	7493	-1038	0	7409	20	1000
8	Closeup Right Side	-1729	6179	-1153	0	7079	50	1000
9	Passenger and Interior View	-5136	9516	-2460	-10	10211	ZOOM	1000
10	Right Side View	-1582	7995	-1713	-6	7134	ZOOM	1000
11	Windshield View	-354	0	-5749	-90		24	1000
12	Driver Front View	363	-543	-2548	-34		25	1000
13	Passenger Front View	381	445	-2548	-34		25	1000
14	Pit View of Engine	-756	0	1495	90		12	1000
15	Pit View of Fuel Tank	-1418	0	1495	90		8	1000
16	Driver Side Dummy On-Board	118	316	-1716	24	953	12	1000
17	Passenger Side Dummy On-Board	117	-316	-1716	23	863	12	1000
18	Real Time Driver	-1926	-8089	-1704	-1	-1704	-1	30
19	Real Time Passenger	-1433	8047	-1704	-1	-1704	-1	30

All measurements are made relative to the point of impact.

DATA SHEET NO. 15

PHOTOGRAPHIC REFERENCE TARGET LOCATIONS

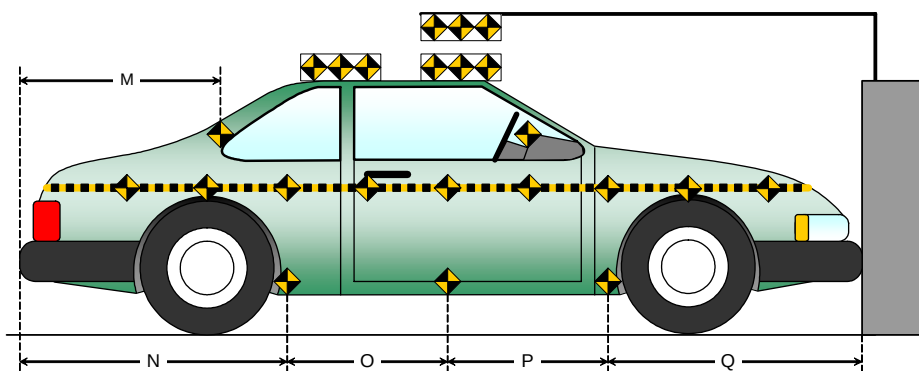
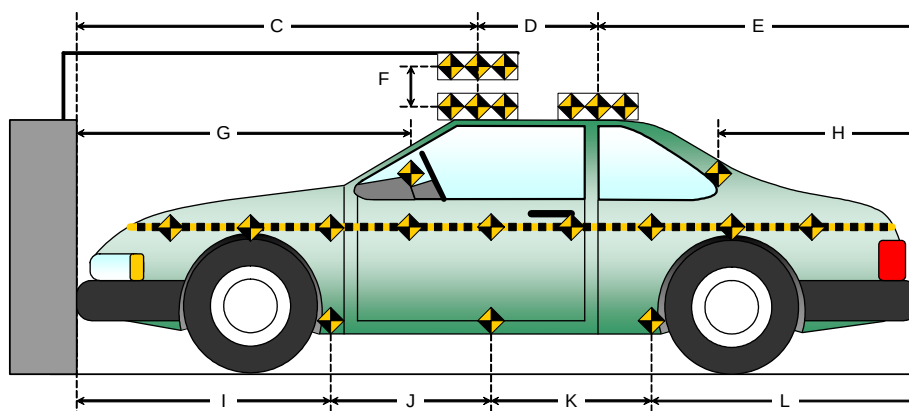
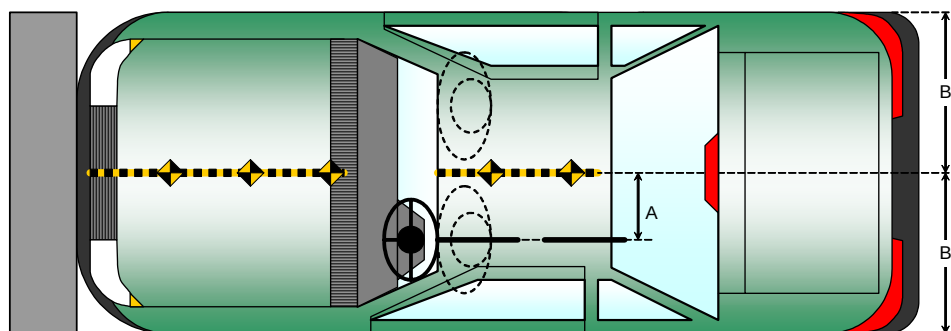
Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV

NHTSA No.: M95300

Test Program: NHTSA 35mph NCAP

Test Date: 6/12/08

All Dimensions in Millimeters (mm)	
Item	Value
A	430
B	989
C	2198
D	615
E	2121
F	
G	1670
H	1300
I	1515
J	835
K	835
L	1643
M	1299
N	1642
O	836
P	836
Q	1516



DATA SHEET NO. 16

VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV

NHTSA No.: M95300

Test Program: NHTSA 35mph NCAP

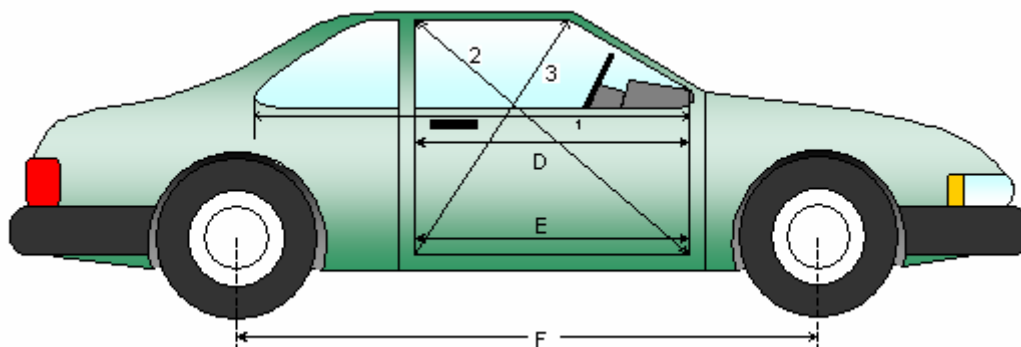
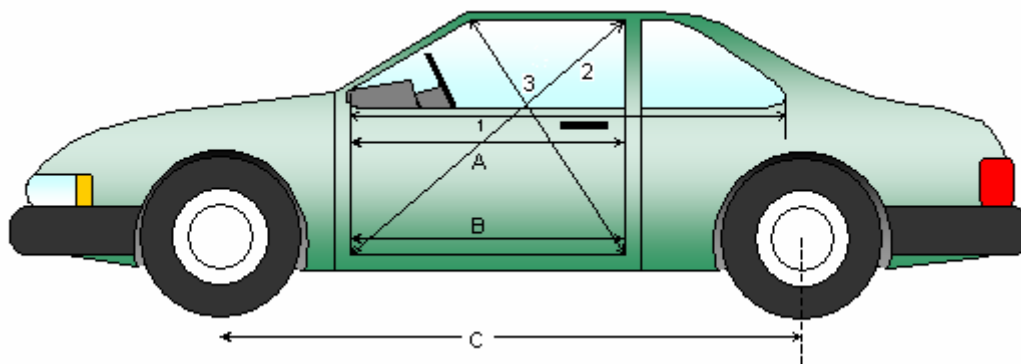
Test Date: 6/12/08

DOOR OPENING WIDTH TABLE

Item	Description	Units	Pre-Test	Post-Test	Difference
1L	Left Side	mm	959	951	8
2L	Left Side (Diagonally)	mm	1456	1451	5
3L	Left Side (Diagonally)	mm	1100	1096	4
1R	Right Side	mm	962	961	1
2R	Right Side (Diagonally)	mm	1455	1461	-6
3R	Right Side (Diagonally)	mm	1115	1116	-1

WHEELBASE MEASUREMENT TABLE

Item	Description	Units	Pre-Test	Post-Test	Difference
C	Left Side Wheelbase	mm	2780	2700	80
F	Right Side Wheelbase	mm	2780	2665	115



DATA SHEET NO. 16...(CONTINUED)

VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV

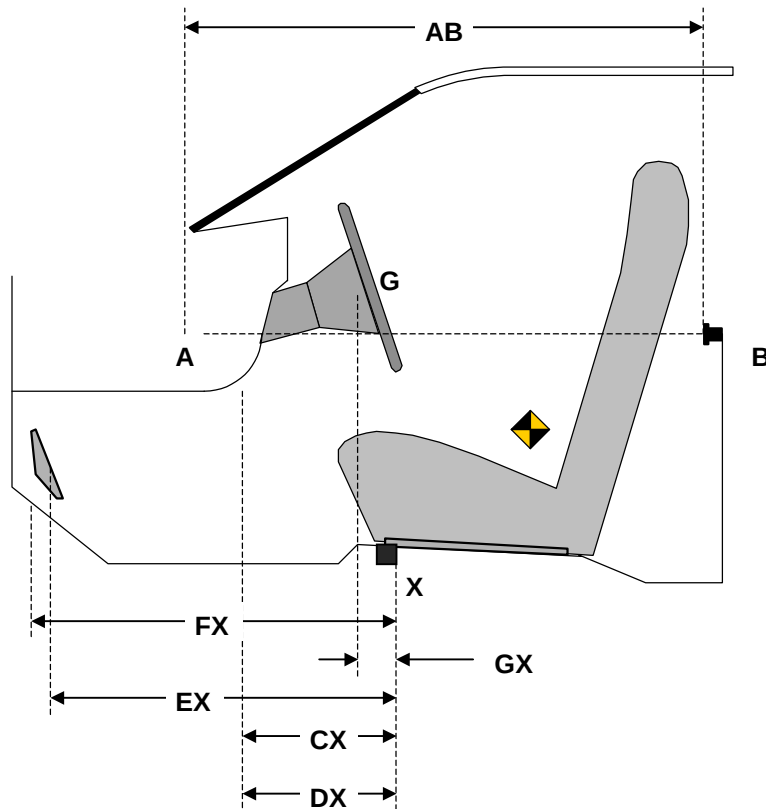
NHTSA No.: M95300

Test Program: NHTSA 35mph NCAP

Test Date: 6/12/08

DRIVER COMPARTMENT INTRUSION TABLE

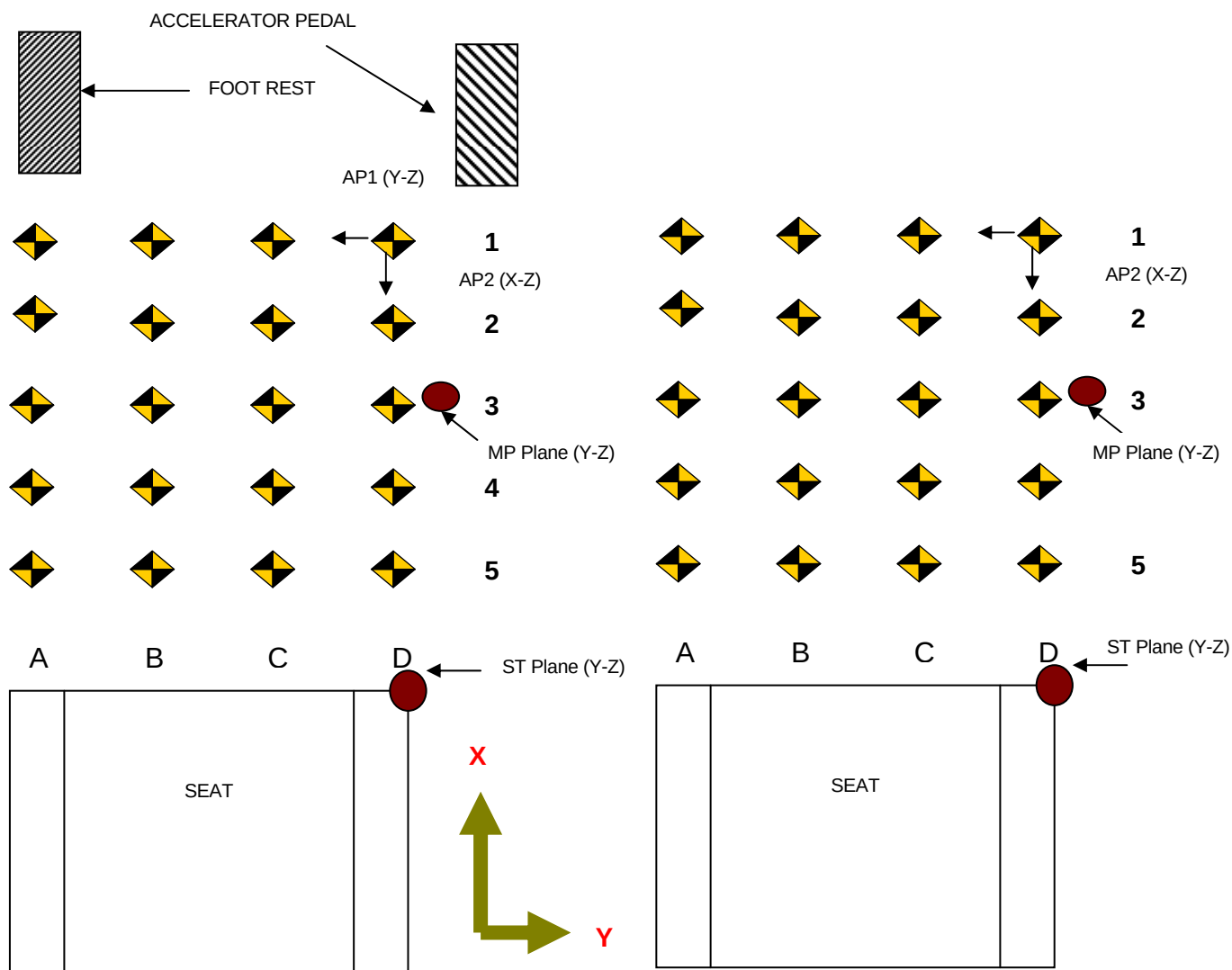
Item	Description	Units	Pre-Test	Post-Test	Difference
AB	Door Opening (Inside Windowdown Jam)	mm	959	951	8
CX	Left Knee Bolster to X	mm	235	240	-5
DX	Right Knee Bolster to X	mm	215	260	-45
EX	Brake Pedal to X	mm	520	410	110
FX	Foot Rest to X	mm	515	541	-26
GX	Center of Steering Wheel Hub to X	mm	30	75	-45



DATA SHEET NO. 16...(CONTINUED)
VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV
 Test Program: NHTSA 35mph NCAP

NHTSA No.: M95300
 Test Date: 6/12/08



- AP1: Y-Z Plane passing through D1
- AP2: X-Z Plane passing through D1
- AP3: X-Y plane passing through D1
- MP: Y-Z plane, halfway between the ST plane and AP1 plane
- CF Plane: X-Z plane passes through center of footrest.
- BP Plane: X-Z plane passes through center of brake pedal
- TP Plane: Y-Z plane, intersection of BP Plane and the intersection of the toe pan and floorboard
- Column A: intersection of vehicle and CF plane
- Column D: Intersection of vehicle and AP2 plane
- Row 1: intersection of the vehicle and the AP3 Plane
- Row 3: intersection of the vehicle and TP plane
- Row 5: intersection of the vehicle and MP plane
- Row 2: evenly spaced between row 1 and 3
- Row 4: evenly spaced between row 3 and 5

DATA SHEET NO. 16...(CONTINUED)

VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV

NHTSA No.: M95300

Test Program: NHTSA 35mph NCAP

Test Date: 6/12/08

All measurements in mm

DRIVER FLOORPAN X-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	607	649	641	614	580	626	625	594	27	23	16	20
2	576	564	555	549	554	550	546	537	22	14	9	12
3	446	437	428	413	440	437	434	425	6	0	-6	-12
4	334	326	317	301	332	329	323	317	2	-3	-6	-16
5	222	213	201	182	220	215	209	200	2	-2	-8	-18

DRIVER FLOORPAN Y-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	78	192	289	441	51	165	263	411	27	27	26	30
2	64	184	286	444	38	161	262	418	26	23	24	26
3	56	170	275	446	34	151	255	427	22	19	20	19
4	44	161	265	443	27	144	250	425	17	17	15	18
5	37	148	259	442	25	135	246	424	12	13	13	18

DRIVER FLOORPAN Z-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	-48	-11	-10	-21	-90	-51	-43	-51	42	40	33	30
2	39	39	40	36	0	12	16	20	39	27	24	16
3	74	73	71	69	46	53	55	64	28	20	16	5
4	69	70	71	71	50	57	67	94	19	13	4	-23
5	73	63	68	79	56	56	70	99	17	7	-2	-20

DATA SHEET NO. 16...(CONTINUED)**VEHICLE INTRUSION MEASUREMENTS**Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPVNHTSA No.: M95300Test Program: NHTSA 35mph NCAPTest Date: 6/12/08

All measurements in mm

PASSENGER FLOORPAN X-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	676	672	663	611	615	634	623	565	61	38	40	46
2	584	583	582	461	549	557	550	543	35	26	32	39
3	342	452	458	344	433	444	445	452	14	8	13	9
4	235	344	346	231	333	337	336	334	9	7	10	10
5	235	228	234	231	241	230	225	222	-6	-2	9	9

PASSENGER FLOORPAN Y-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	-384	-209	-118	-4	-374	-203	-116	7	-10	-6	-2	-11
2	-394	-218	-118	1	-385	-215	-115	7	-9	-3	-3	-6
3	-400	-227	-117	-4	-397	-225	-114	0	-3	-2	-3	-4
4	-404	-228	-117	-4	-399	-223	-114	-2	-5	-5	-3	-2
5	-410	-232	-118	-6	-406	-230	-117	-5	-4	-2	-1	-1

PASSENGER FLOORPAN Z-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	-24	-9	-8	-38	-82	-50	-57	-88	58	41	49	50
2	32	42	42	43	-1	13	9	-2	33	29	33	45
3	65	75	75	75	58	59	56	48	7	16	19	27
4	70	75	75	71	71	62	54	47	-1	13	21	24
5	87	75	68	75	101	72	57	59	-14	3	11	16

DATA SHEET NO. 17

FIXED BARRIER LOAD CELL LOCATIONS

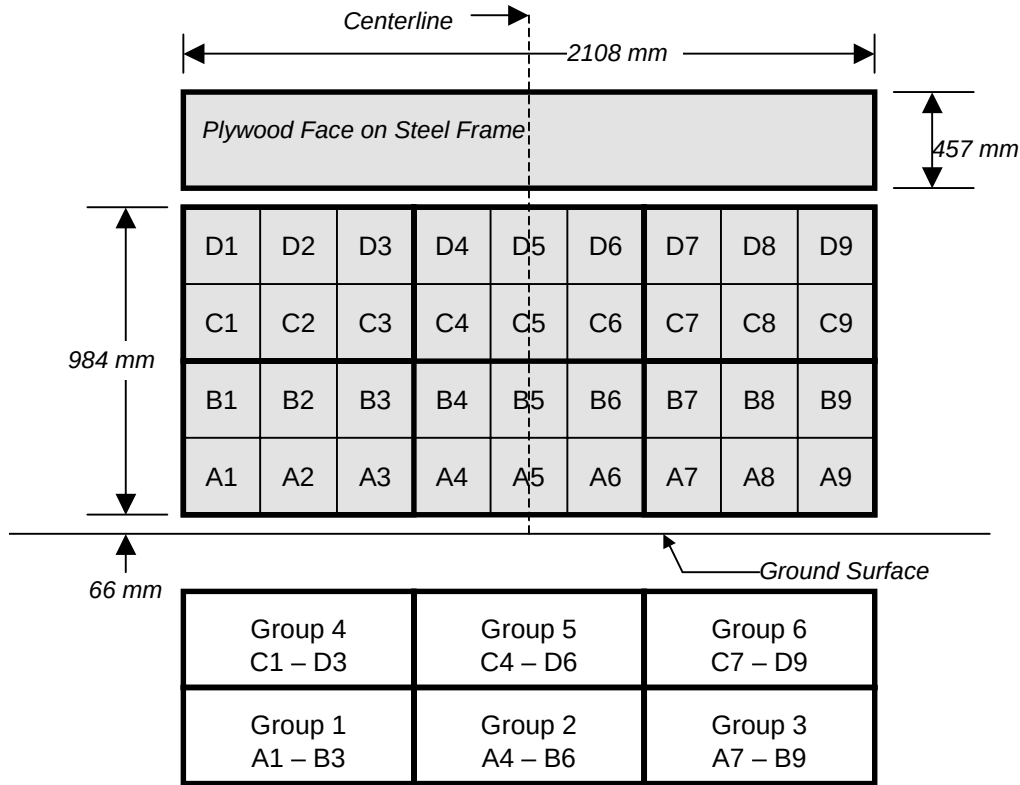
Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV

NHTSA No.: M95300

Test Program: NHTSA 35mph NCAP

Test Date: 6/12/08

36 Load Cell Rigid Barrier (NHTSA Standard) Load Cell Locations on Fixed Barrier



6 Groups of 6 Load Cells Each

DATA SHEET NO. 18

ACCIDENT INVESTIGATION DIVISION DATA

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV NHTSA No.: M95300
 Test Program: NHTSA 35mph NCAP Test Date: 6/12/08

VEHICLE INFORMATION

VIN: 5FNYP48479B000835 Wheelbase (mm): 2780
 Vehicle Size Category: 5-Door MPV Test Weight (kg): 2225

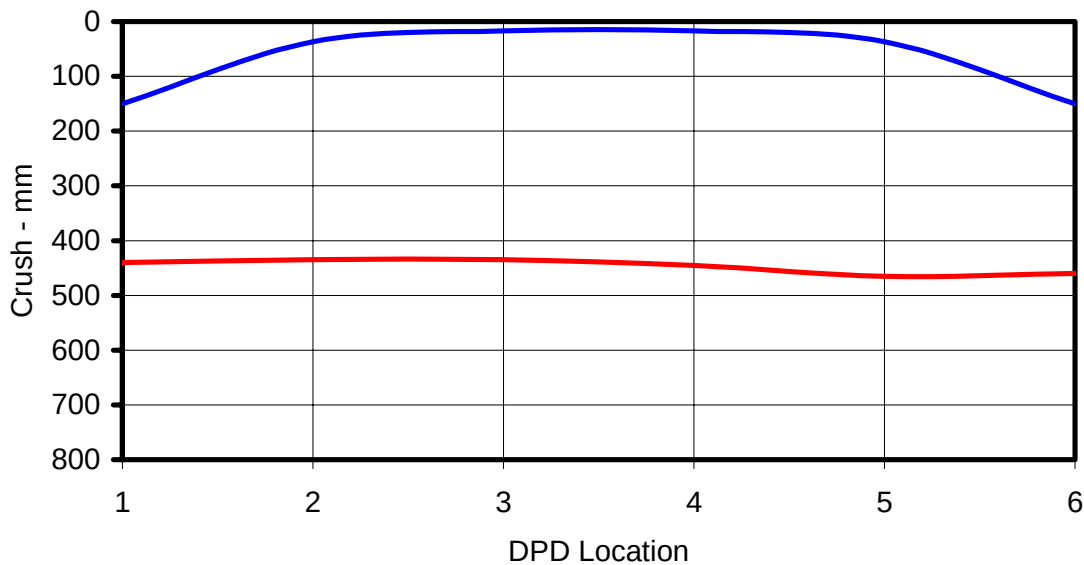
ACCELEROMETER DATA

Accelerometer Location: Left rear cross member
 Cal. Procedure/Interval: 6 months/drop test
 Integration Algorithm: NHTSA Standard Linearity: Good
 Impact Velocity (km/h): 56.24
 Velocity Change (km/h): 64.3 Time of Separation (msec): 73.1

CRUSH PROFILE

Collision Deformation Classification: 12FDEW6 Midpoint of Damage: Vehicle Centerline
 Damage Region Length: 1454 Impact Mode: Full frontal

No.	Measurement Description	Units	Pre-Test	Post-Test	Difference
C1	Crush zone 1 at left side of vehicle	mm	150	440	-290
C2	Crush zone 2 on left side of vehicle	mm	37	435	-398
C3	Crush zone 3 on left side of vehicle	mm	17	435	-418
C4	Crush zone 4 on right side of vehicle	mm	17	445	-428
C5	Crush zone 5 on right side of vehicle	mm	37	465	-428
C6	Crush zone 6 at right side of vehicle	mm	150	460	-310



DATA SHEET NO. 19

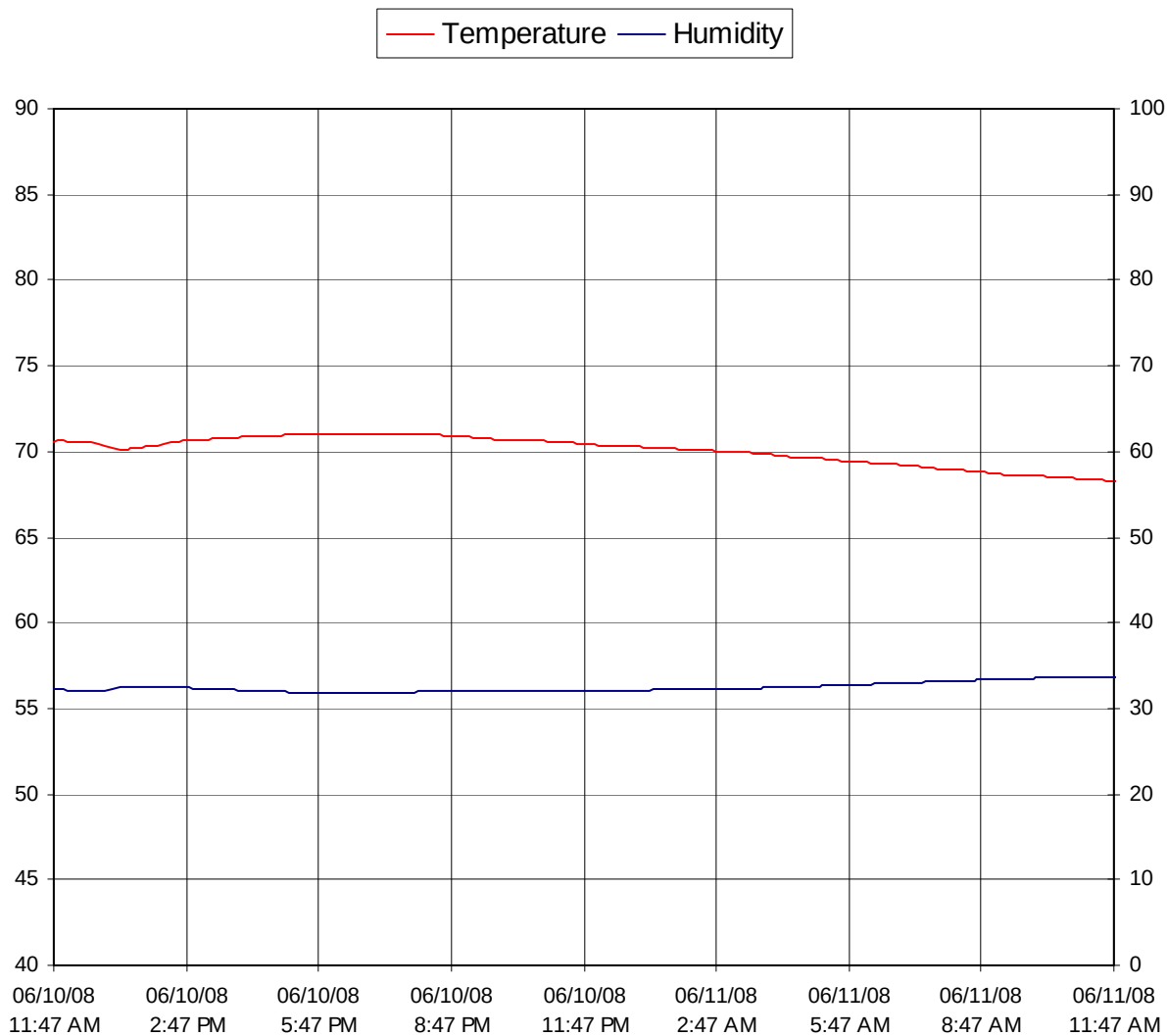
DUMMY/VEHICLE TEMPERATURE STABILIZATION

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV

NHTSA No.: M95300

Test Program: NHTSA 35mph NCAP

Test Date: 6/12/08



APPENDIX A
PHOTOGRAPHS

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A-60	Vehicle on Rollover Device (180°)	A-60
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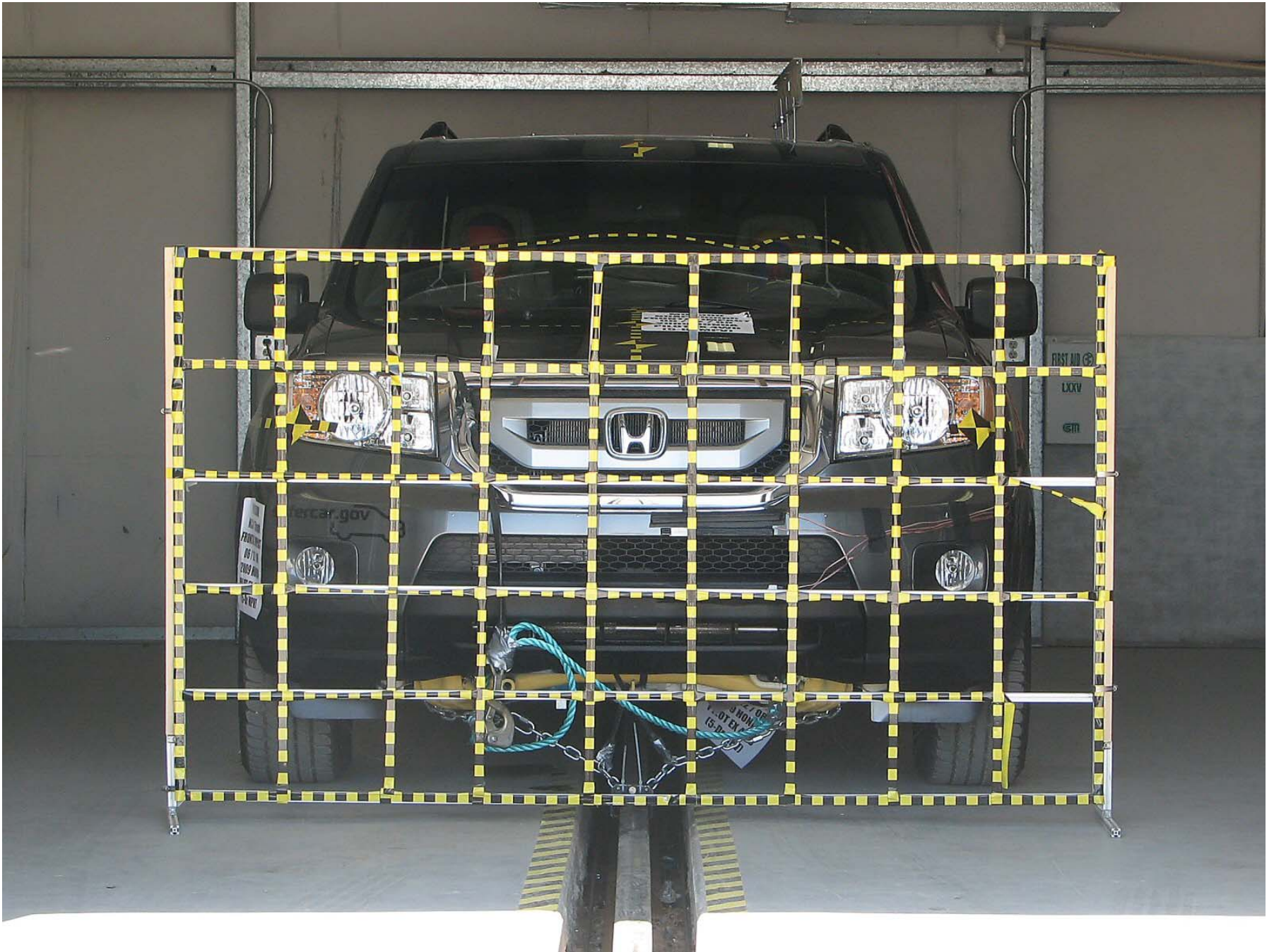


Figure A-1: Load Cell Location

MFD. BY HONDA MFG. OF ALABAMA, LLC 04/'08
GVWR 2765KG(6096LBS) TIRE SIZE RIM SIZE
GAWR F 1325KG(2921LBS) P245/65R17 105T 17X7.5J
GAWR R 1525KG(3362LBS) P245/65R17 105T 17X7.5J
THIS VEHICLE CONFORMS TO ALL APPLICABLE
FEDERAL MOTOR VEHICLE SAFETY
AND THEFT PREVENTION STANDARDS IN EFFECT
ON THE DATE OF MANUFACTURE SHOWN ABOVE.
V.I.N.: 5FNYF48479B000835 TYPE: MPV



SZA 9 AB5 - NH705M - F - B

Figure A-2: Manufacturer's Label

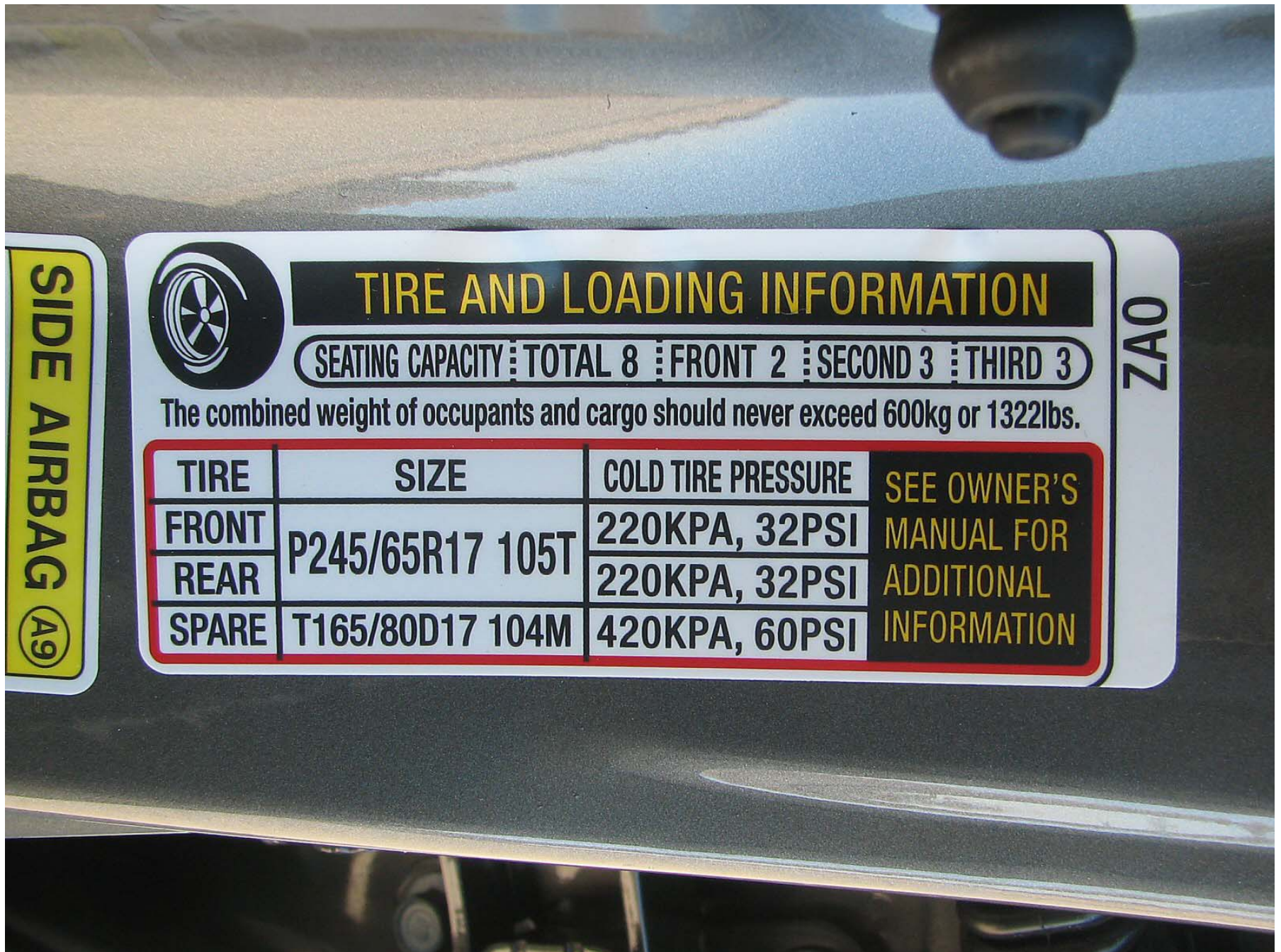


Figure A-3: Tire Placard



Figure A-4: Right Front $\frac{3}{4}$ View, As Received



Figure A-5: Left Rear $\frac{3}{4}$ View, as Received



Figure A-6: Pre-Test Front View



Figure A-7: Post-Test Front View (Vehicle Moved)



Figure A-8: Pre-Test Left Side View



Figure A-9: Post-Test Left Side View



Figure A-10: Pre-Test Right Side View



Figure A-11: Post-Test Right Side View



Figure A-12: Pre-Test Right Front $\frac{3}{4}$ View



Figure A-13: Post-Test Right Front ¾ View (Vehicle Moved)



Figure A-14: Pre-Test Left Rear $\frac{3}{4}$ View



Figure A-15: Post-Test Left Rear $\frac{3}{4}$ View



Figure A-16: Post-Test Left Side ¾ View of Doors After Impact



Figure A-17: Post-Test Right Side $\frac{3}{4}$ View of Doors After Impact

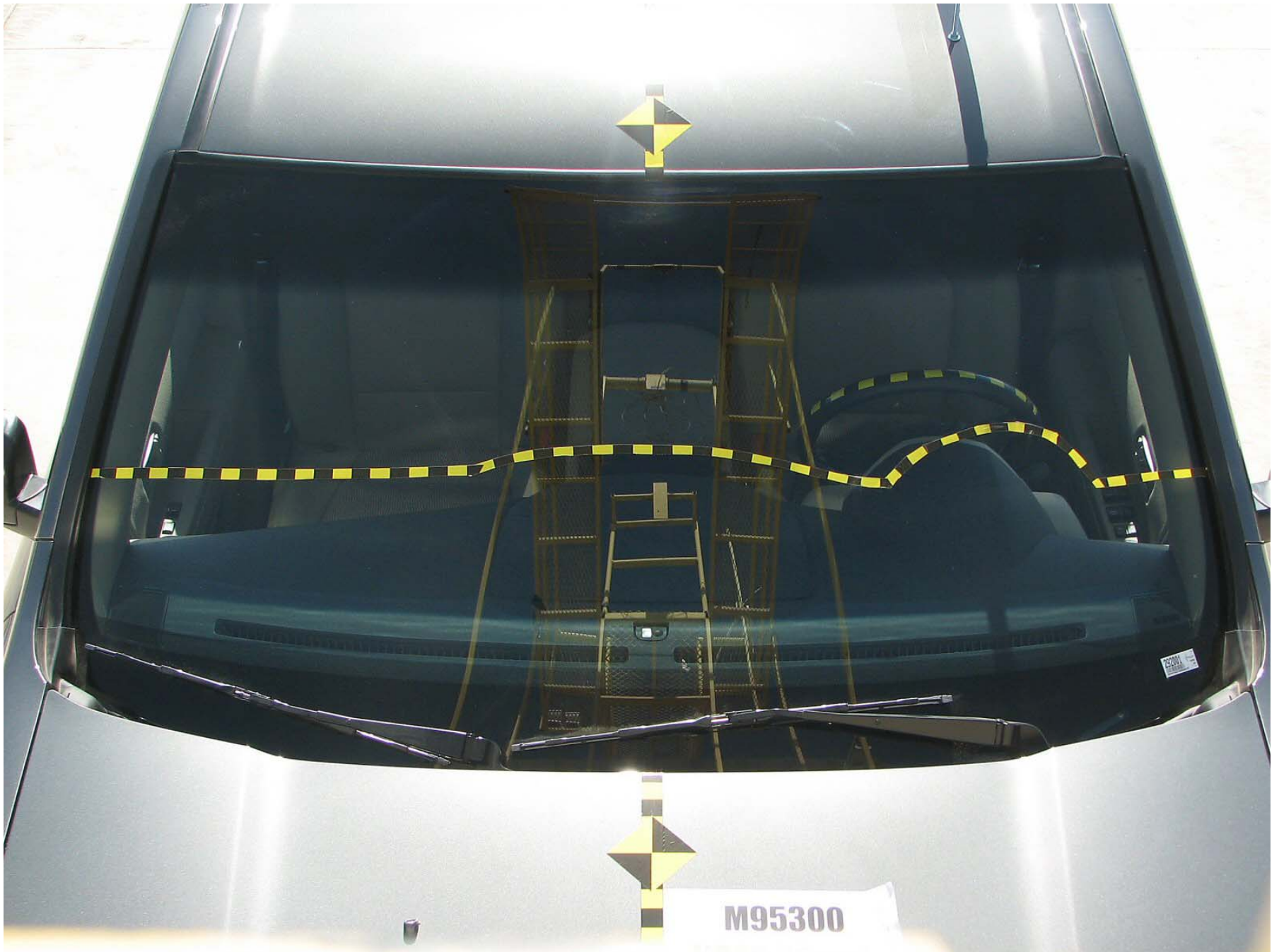


Figure A-18: Pre-Test Windshield

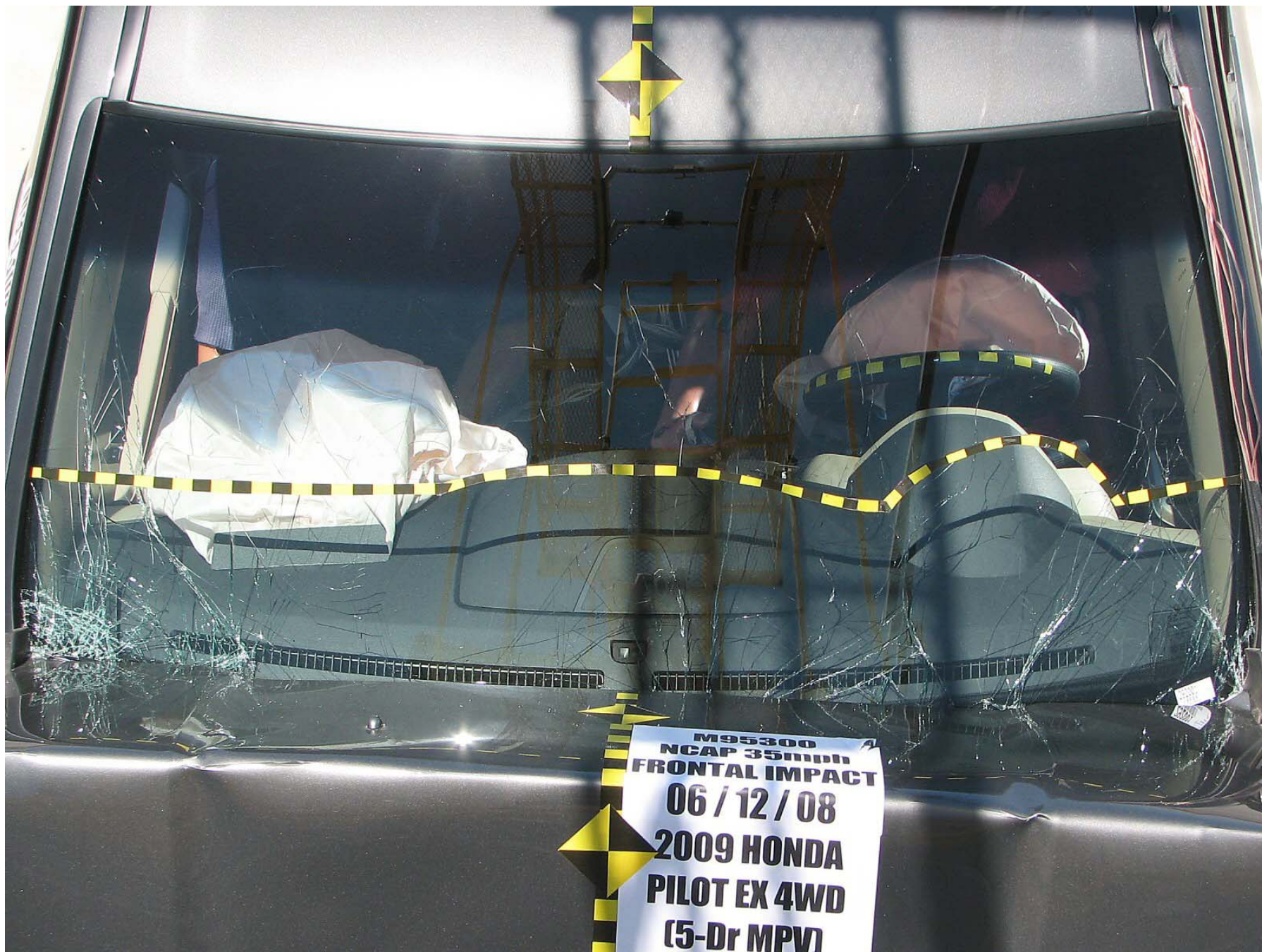


Figure A-19: Post-Test Windshield



Figure A-20: Pre-Test Engine Compartment

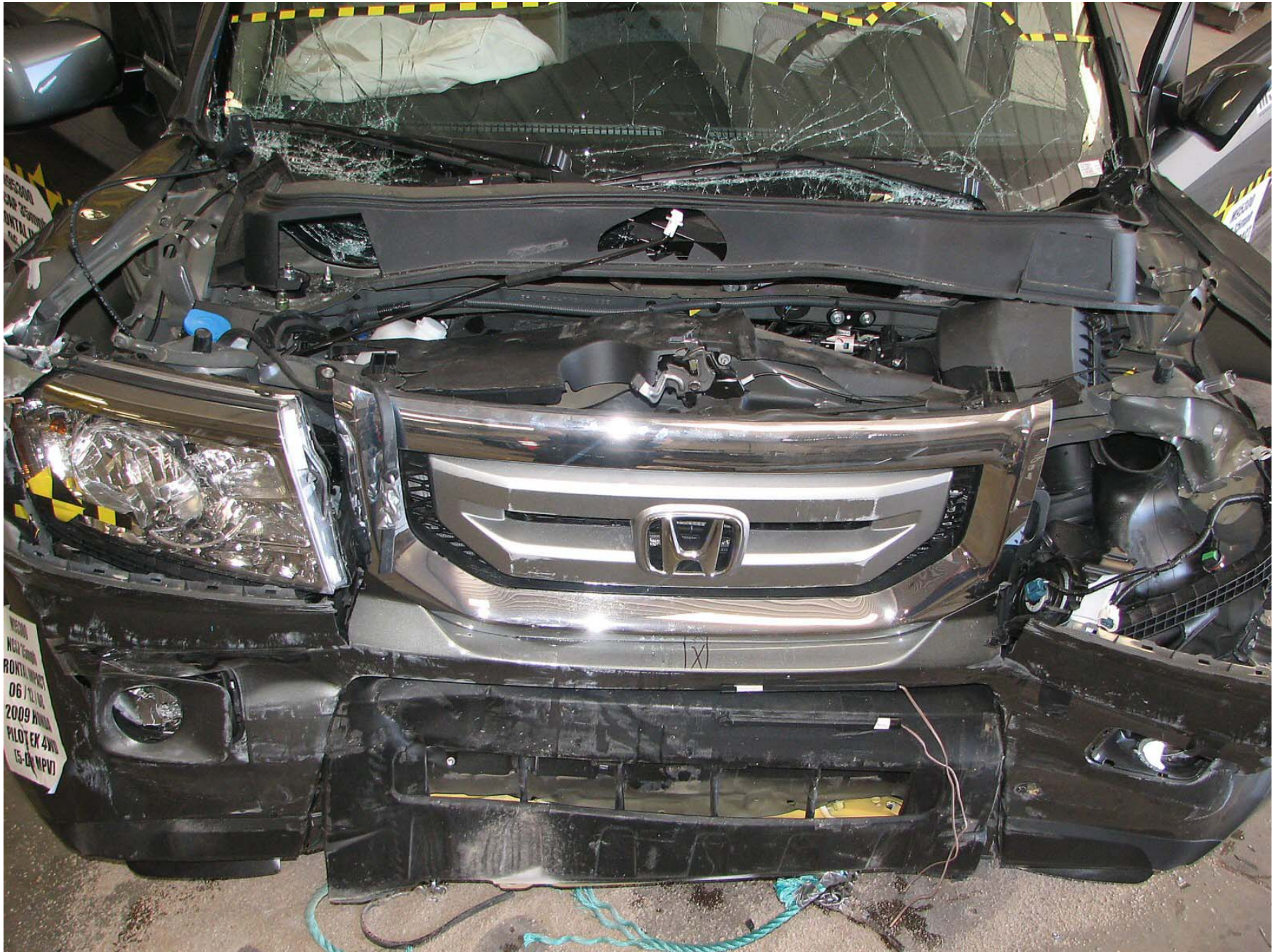


Figure A-21: Post-Test Engine Compartment (Vehicle Moved)



Figure A-22: Pre-Test Fuel Cap



Figure A-23: Post-Test Fuel Cap

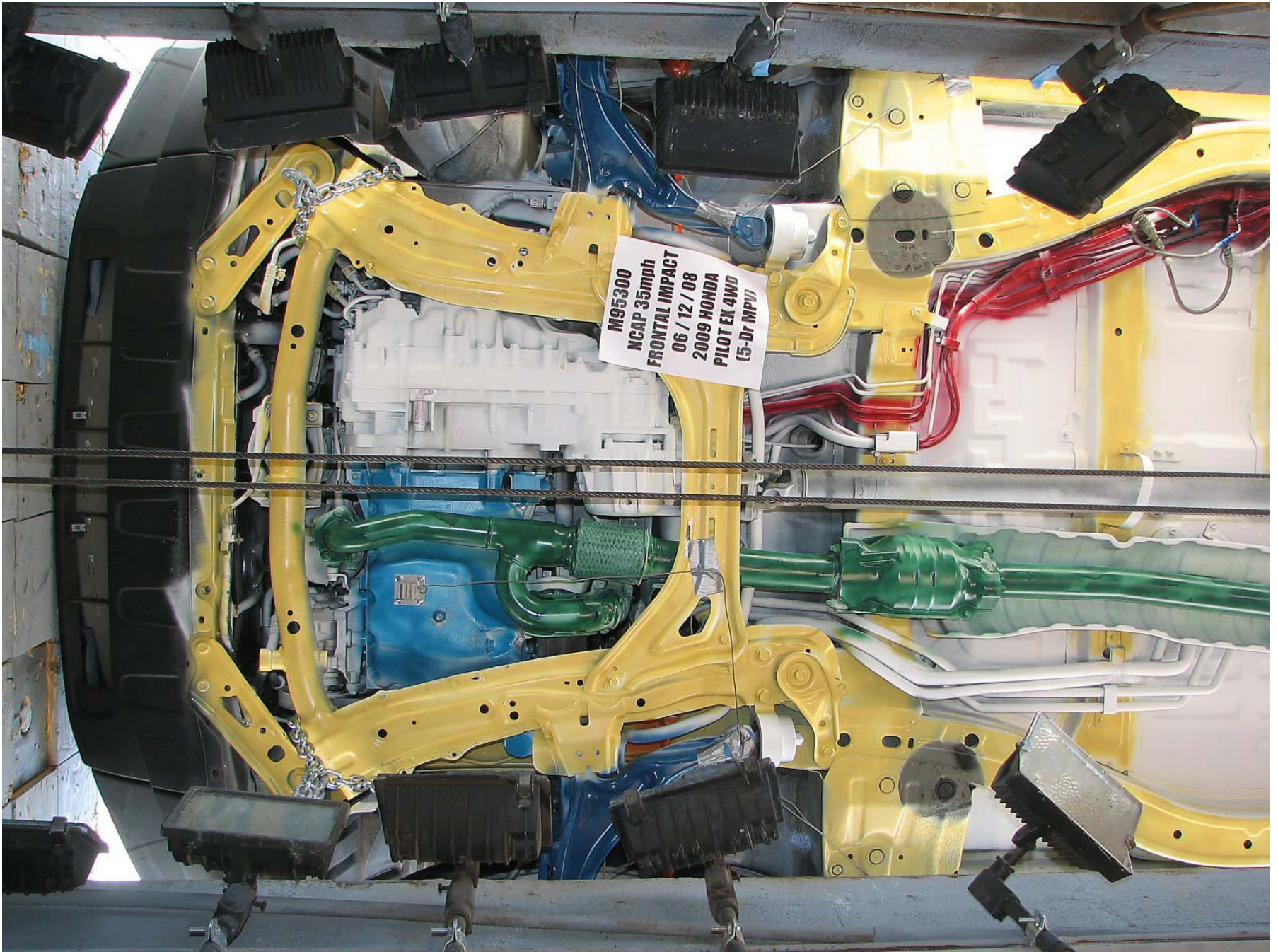


Figure A-24: Pre-Test Front Underbody

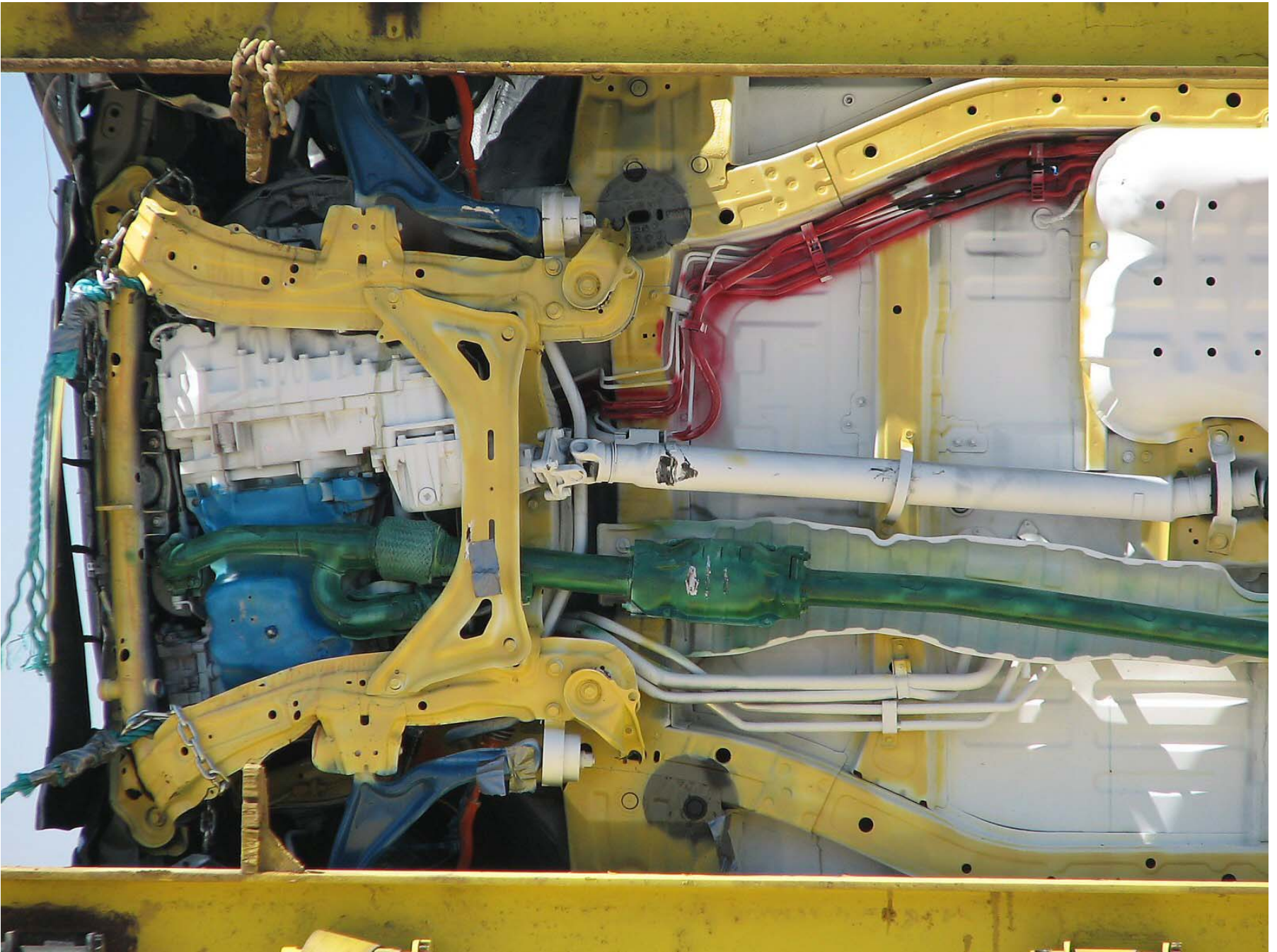


Figure A-25: Post-Test Front Underbody

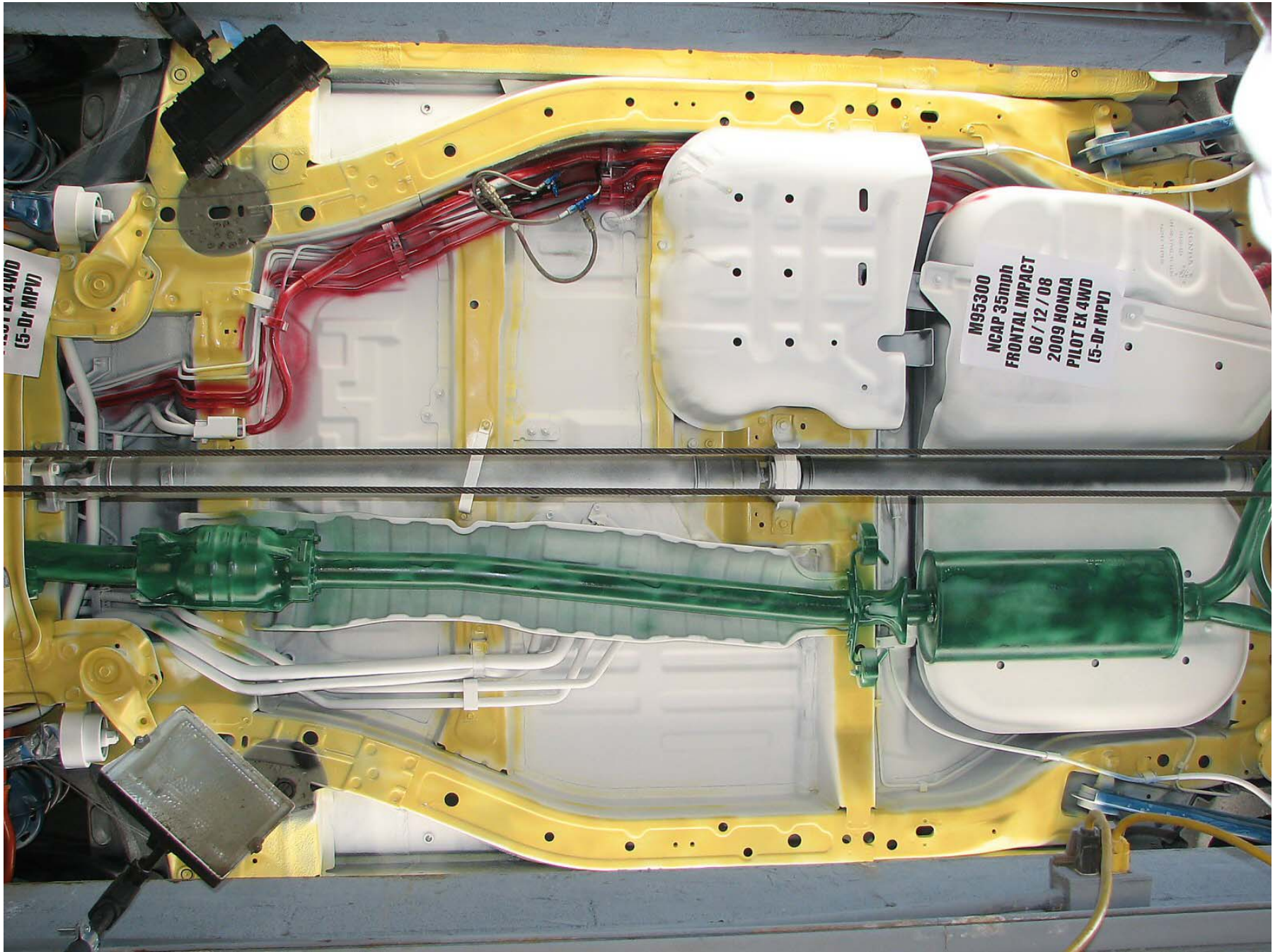


Figure A-26: Pre-Test Mid Underbody

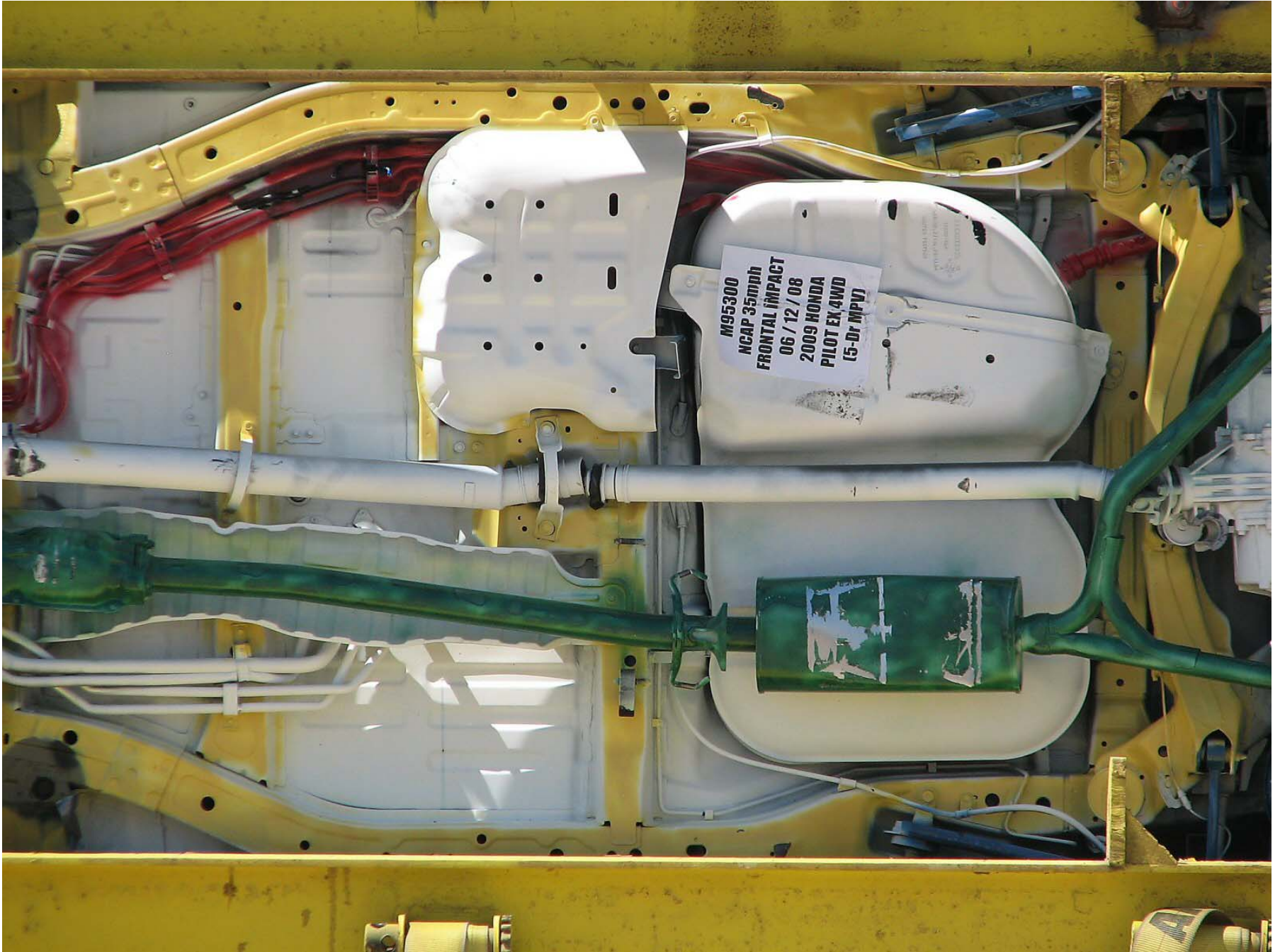


Figure A-27: Post-Test Mid Underbody

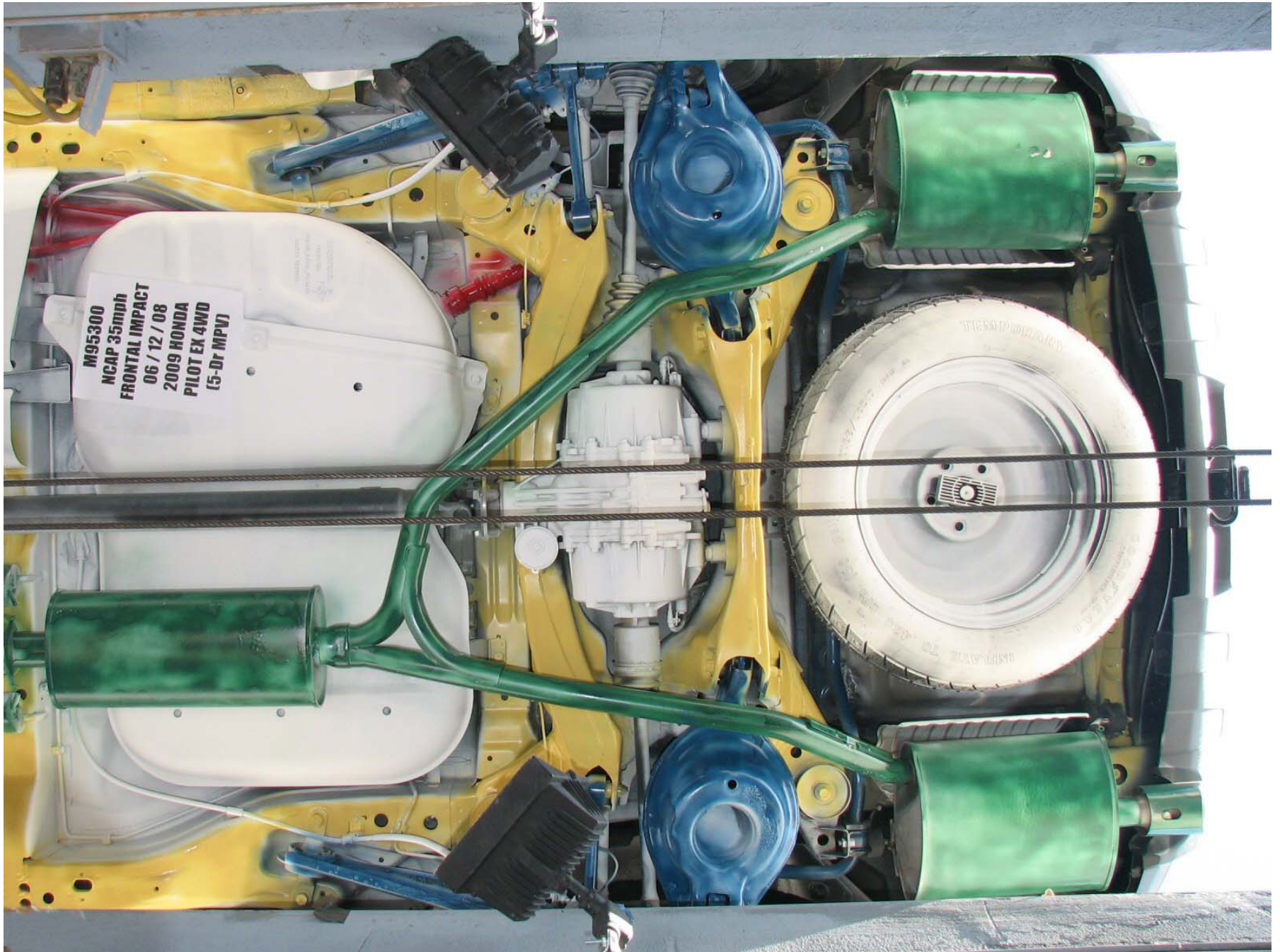


Figure A-28: Pre-Test Rear Underbody

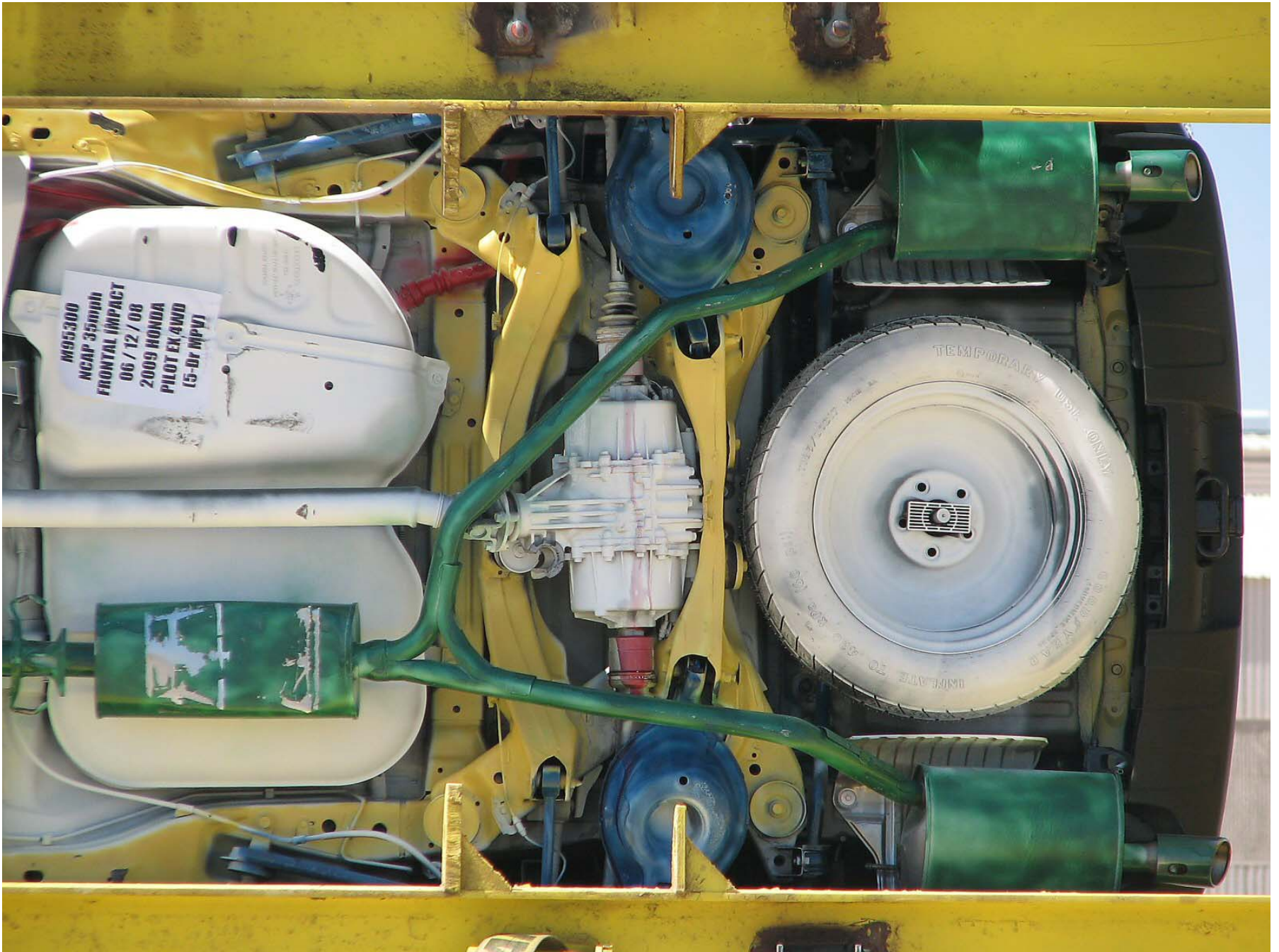


Figure A-29: Post-Test Rear Underbody



Figure A-30: Pre-Test Driver Dummy Front View (Head Position)



Figure A-31: Post-Test Driver Dummy Front View (Head Position)



Figure A-32: Pre-Test Driver Dummy (Through Window)



Figure A-33: Post-Test Driver Dummy (Through Window)



Figure A-34: Pre-Test Driver Dummy (Door Open)



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



Figure A-36: Pre-Test Driver Dummy Feet



Figure A-37: Post-Test Driver Dummy Feet



Figure A-38: Pre-Test Driver Side Knee Bolster



Figure A-39: Post-Test Driver Side Knee Bolster



Figure A-40: Pre-Test Driver Side Floor Pan



Figure A-41: Post-Test Driver Side Floor Pan



Figure A-42: Post-Test Driver Dummy Head

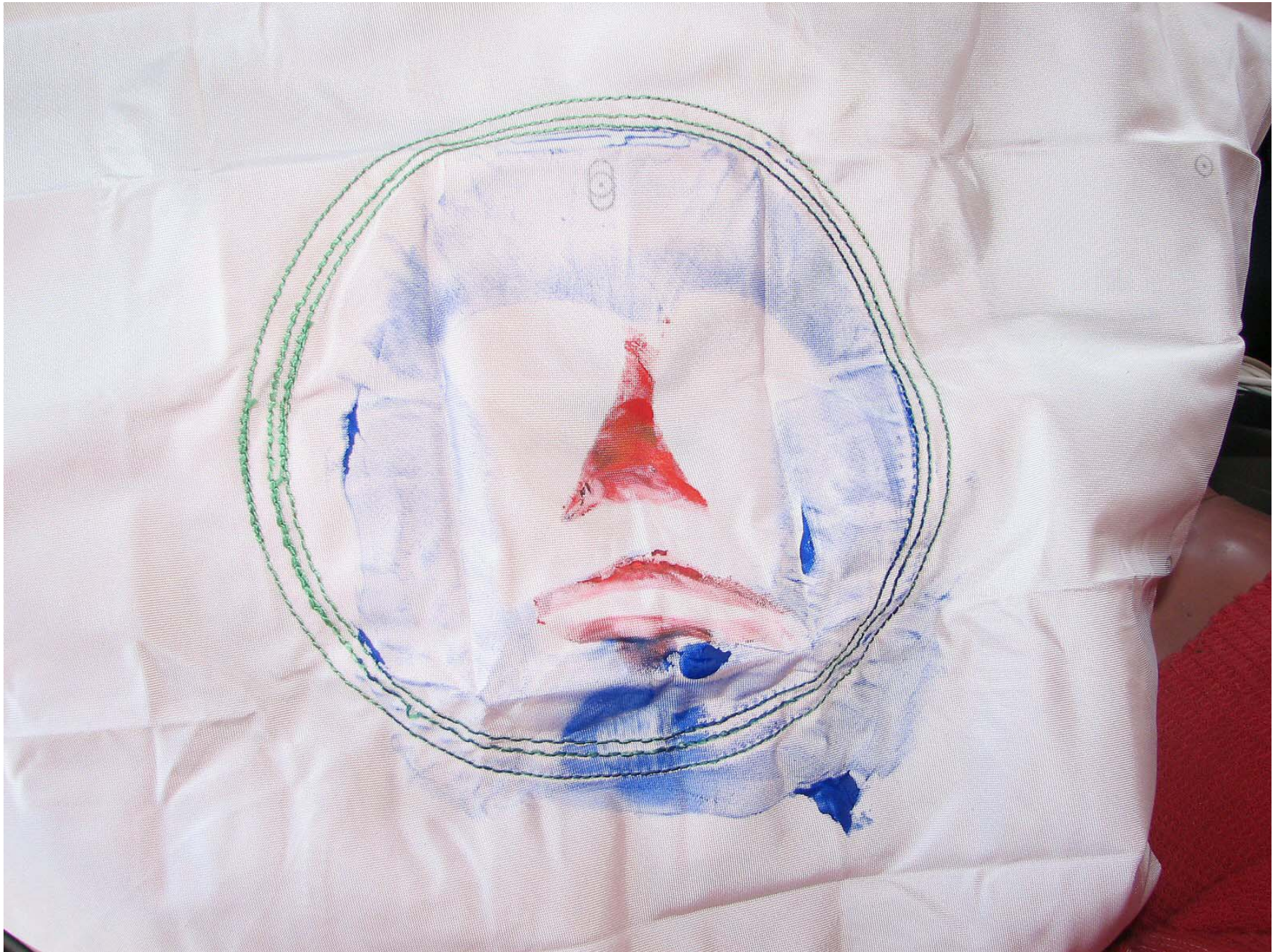


Figure A-43: Post-Test Driver Dummy Airbag Contact



Figure A-44: Pre-Test Passenger Dummy Front View (Head Position)



Figure A-45: Post-Test Passenger Dummy Front View (Head Position)



Figure A-46: Pre-Test Passenger Dummy (Through Window)



Figure A-47: Post-Test Passenger Dummy (Through Window)



Figure A-48: Pre-Test Passenger Dummy (Door Open)



Figure A-49: Post-Test Passenger Dummy (Door Open)



Figure A-50: Pre-Test Passenger Dummy Feet



Figure A-51: Post-Test Passenger Dummy Feet



Figure A-52: Pre-Test Passenger Side Glove Box



Figure A-53: Post-Test Passenger Side Glove Box

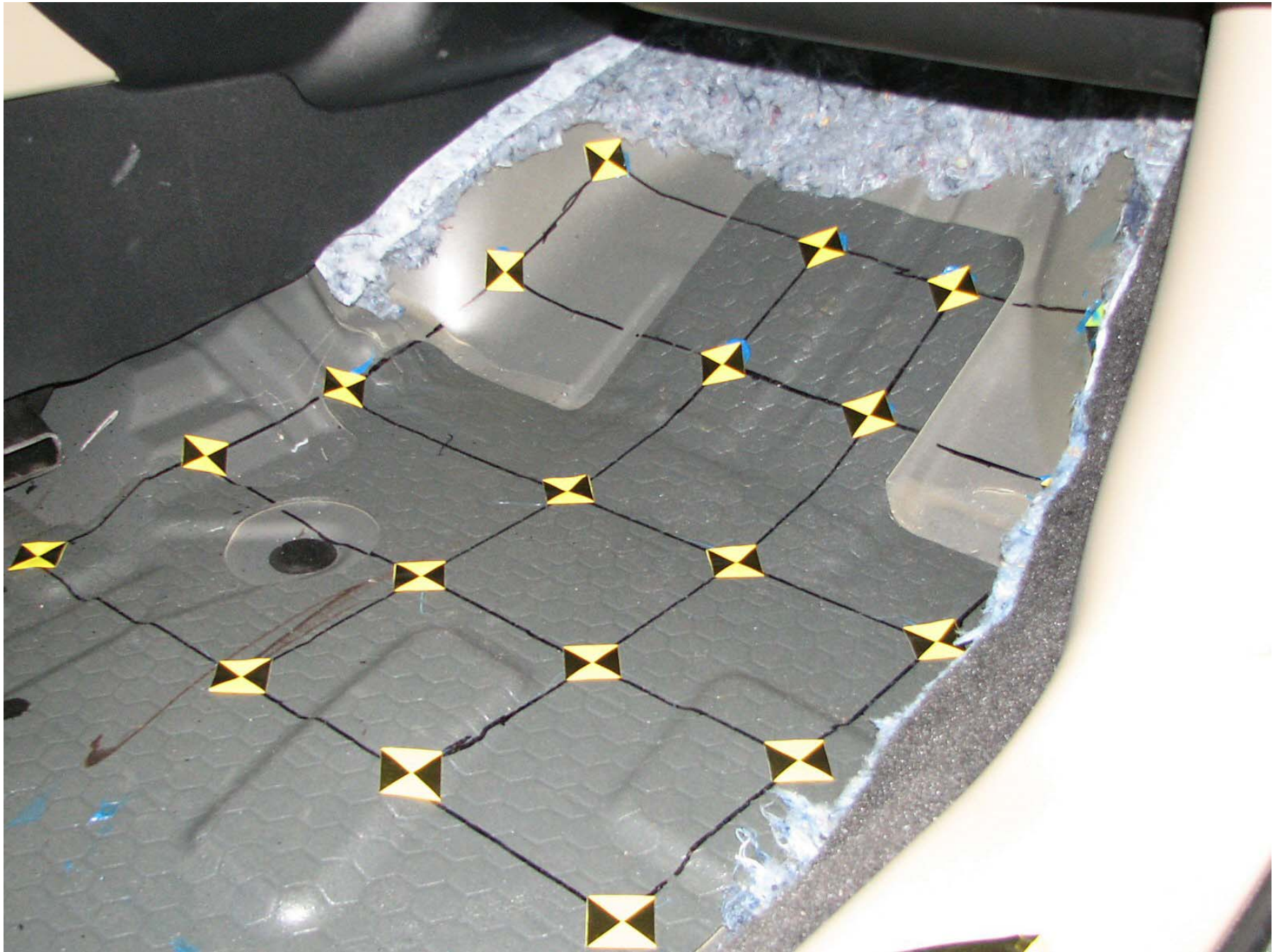


Figure A-54: Pre-Test Passenger Side Floor Pan



Figure A-55: Post-Test Passenger Side Floor Pan



Figure A-56: Post-Test Passenger Dummy Head



Figure A-57: Post-Test Passenger Dummy Airbag Contact



Figure A-58: Vehicle on Rollover Device (0°)



Figure A-59: Vehicle on Rollover Device (90°)



Figure A-60: Vehicle on Rollover Device (180°)

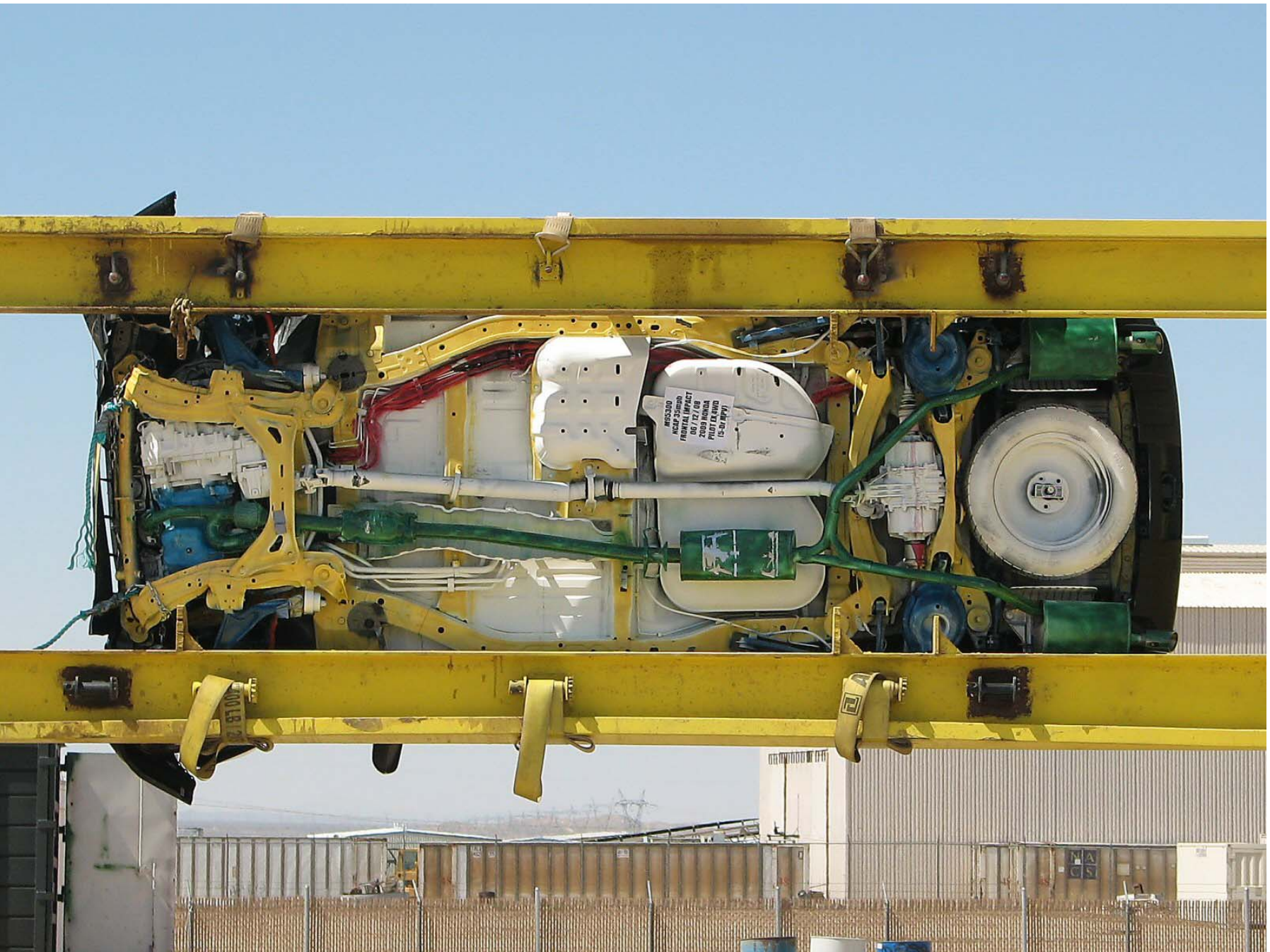


Figure A-61: Vehicle on Rollover Device (270°)



Figure A-62: Vehicle Impact

APPENDIX B
DATA PLOTS

LIST OF DATA PLOTS

Data Plot		Page
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	Driver Head Primary Z	B-1
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	Driver Chest Primary Y	B-2
	Driver Chest Primary Z	B-2
	Driver Chest Resultant Primary	B-2
B-3	Driver Left Femur Force Z	B-3
	Driver Right Femur Force Z	B-3
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	Passenger Head Primary Y	B-4
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	Passenger Head Resultant Primary	B-4
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	Passenger Chest Primary Z	B-5
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	Passenger Right Femur Force Z	B-6

LIST OF DATA PLOTS...(CONTINUED)

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

- Driver Head Primary X Velocity
- Driver Head Primary X Displacement
- Driver Head Redundant X
- Driver Head Redundant Y
- Driver Head Redundant Z
- Driver Head Resultant Redundant
- Driver Head Redundant X Velocity
- Driver Head Redundant X Displacement
- Driver Upper Neck Force X
- Driver Upper Neck Force Y
- Driver Upper Neck Force Z
- Driver Upper Neck Force Resultant
- Driver Upper Neck Moment X
- Driver Upper Neck Moment Y
- Driver Upper Neck Moment Z
- Driver Upper Neck Moment Resultant
- Driver Chest Primary X Velocity
- Driver Chest Primary X Displacement
- Driver Chest Redundant X
- Driver Chest Redundant Y
- Driver Chest Redundant Z
- Driver Chest Resultant Redundant
- Driver Chest Redundant X Velocity
- Driver Chest Redundant X Displacement
- Driver Chest Displacement
- Driver Pelvis X
- Driver Pelvis Y
- Driver Pelvis Z
- Driver Pelvis Resultant
- Driver Pelvis X Velocity
- Driver Pelvis X Displacement
- Driver Left Upper Tibia Moment X
- Driver Left Upper Tibia Moment Y
- Driver Right Upper Tibia Moment X

LIST OF DATA PLOTS...(CONTINUED)

Driver Right Upper Tibia Moment Y
Driver Left Lower Tibia Moment X
Driver Left Lower Tibia Moment Y
Driver Left Lower Tibia Force Z
Driver Right Lower Tibia Moment X
Driver Right Lower Tibia Moment Y
Driver Right Lower Tibia Force Z
Driver Left Foot Aft X
Driver Left Foot Aft Z
Driver Left Foot Fore Z
Driver Right Foot Aft X
Driver Right Foot Aft Z
Driver Right Foot Fore Z
Driver Lap Belt Force
Driver Shoulder Belt Force
Driver Shoulder Belt Pullout
Driver Shoulder Belt Elongation
Passenger Head Primary X Velocity
Passenger Head Primary X Displacement
Passenger Head Redundant X
Passenger Head Redundant Y
Passenger Head Redundant Z
Passenger Head Resultant Redundant
Passenger Head Redundant X Velocity
Passenger Head Redundant X Displacement
Passenger Upper Neck Force X
Passenger Upper Neck Force Y
Passenger Upper Neck Force Z
Passenger Upper Neck Force Resultant
Passenger Upper Neck Moment X
Passenger Upper Neck Moment Y
Passenger Upper Neck Moment Z
Passenger Upper Neck Moment Resultant
Passenger Chest Primary X Velocity
Passenger Chest Primary X Displacement
Passenger Chest Redundant X

LIST OF DATA PLOTS...(CONTINUED)

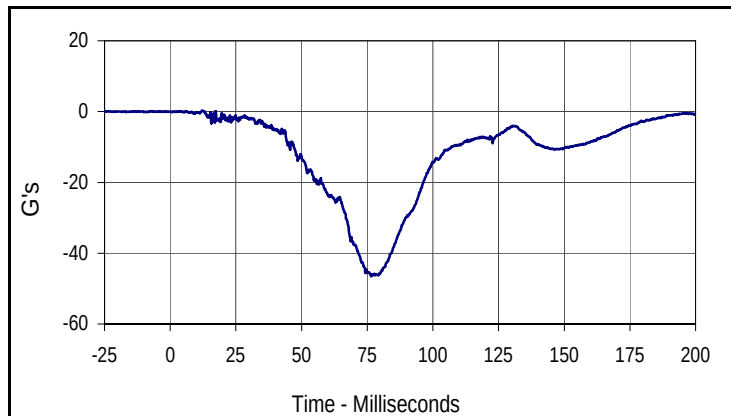
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Passenger Chest Redundant Z
Passenger Chest Resultant Redundant
Passenger Chest Redundant X Velocity
Passenger Chest Redundant X Displacement
Passenger Chest Displacement
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Passenger Pelvis Y
Passenger Pelvis Z
Passenger Pelvis Resultant
Passenger Pelvis X Velocity
Passenger Pelvis X Displacement
Passenger Left Femur Force
Passenger Right Femur Force
Passenger Left Upper Tibia Moment X
Passenger Left Upper Tibia Moment Y
Passenger Right Upper Tibia Moment X
Passenger Right Upper Tibia Moment Y
Passenger Left Lower Tibia Moment X
Passenger Left Lower Tibia Moment Y
Passenger Left Lower Tibia Force Z
Passenger Right Lower Tibia Moment X
Passenger Right Lower Tibia Moment Y
Passenger Right Lower Tibia Force Z
Passenger Left Foot Aft X
Passenger Left Foot Aft Z
Passenger Left Foot Fore Z
Passenger Right Foot Aft X
Passenger Right Foot Aft Z
Passenger Right Foot Fore Z
Passenger Lap Belt Force
Passenger Shoulder Belt Force
Passenger Shoulder Belt Pullout
Passenger Shoulder Belt Elongation
Vehicle Left Rear X
Vehicle Left Rear X Velocity

LIST OF DATA PLOTS...(CONTINUED)

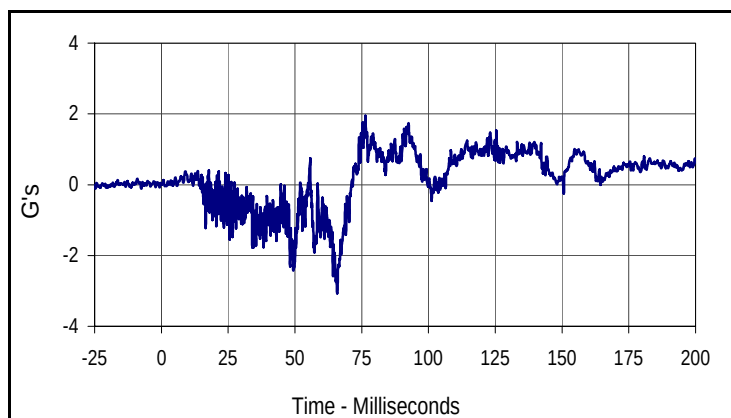
Vehicle Left Rear X Displacement
Vehicle Right Rear X
Vehicle Right Rear X Velocity
Vehicle Right Rear X Displacement
Vehicle Engine Top
Vehicle Engine Top Velocity
Vehicle Engine Top Displacement
Vehicle Engine Bottom
Vehicle Engine Bottom Velocity
Vehicle Engine Bottom Displacement
Vehicle Left Brake Caliper
Vehicle Left Brake Caliper Velocity
Vehicle Left Brake Caliper Displacement
Vehicle Right Brake Caliper
Vehicle Right Brake Caliper Velocity
Vehicle Right Brake Caliper Displacement
Vehicle Instrument Panel
Vehicle Instrument Panel Velocity
Vehicle Instrument Panel Displacement
Vehicle Left Rear Z
Vehicle Left Rear Z Velocity
Vehicle Left Rear Z Displacement
Vehicle Right Rear Z
Vehicle Right Rear Z Velocity
Vehicle Right Rear Z Displacement

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV
 Test Program: NHTSA 35mph NCAP

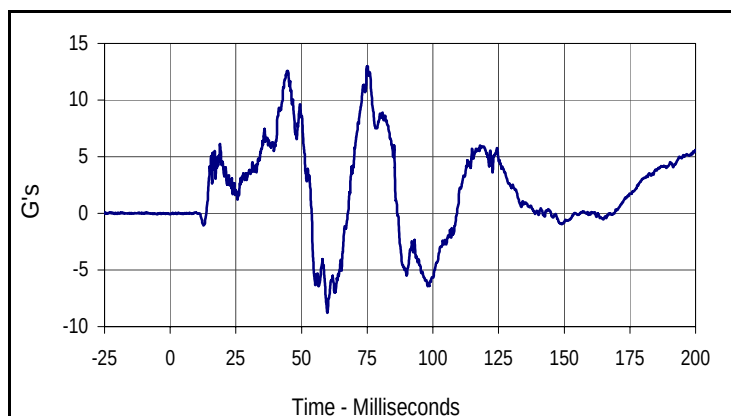
Test Date: 6/12/08
 NHTSA No.: M95300



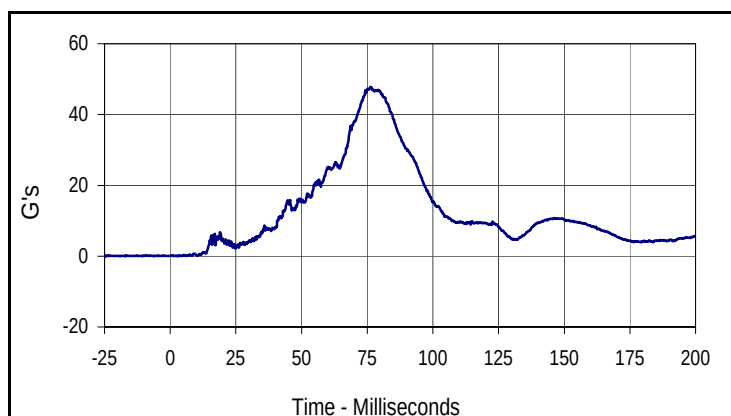
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Driver Head Primary X			
CURNO	Type	SAE Class	Units
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Max	Time	Min	Time
0.3	12.3	-46.5	76.6



Curve Description			
Driver Head Primary Y			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
1.9	76.4	-3.1	65.8



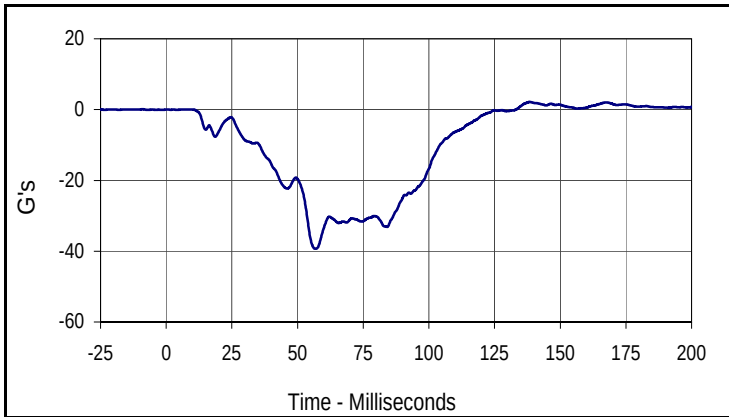
Curve Description			
Driver Head Primary Z			
CURNO	Type	SAE Class	Units
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Max	Time	Min	Time
13.0	75.1	-8.8	59.8



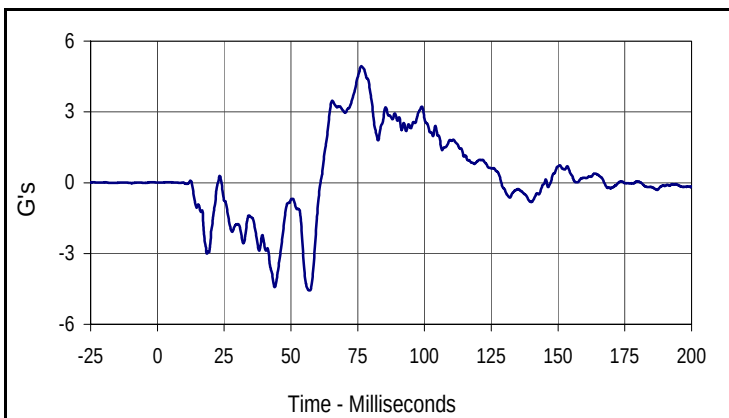
Curve Description			
Driver Head Resultant Primary			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
47.8	76.2	0.0	2.9

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV
 Test Program: NHTSA 35mph NCAP

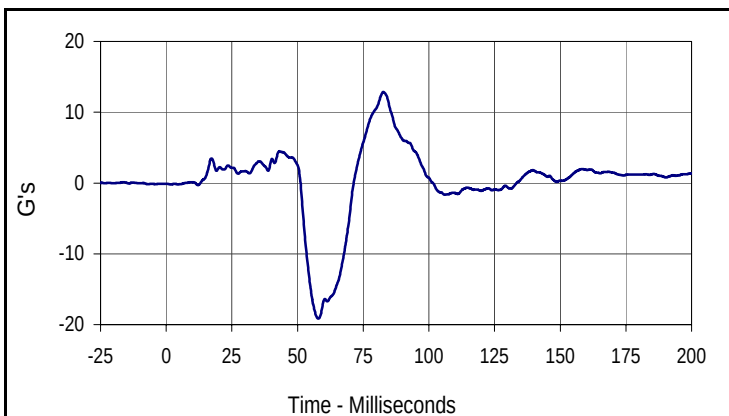
Test Date: 6/12/08
 NHTSA No.: M95300



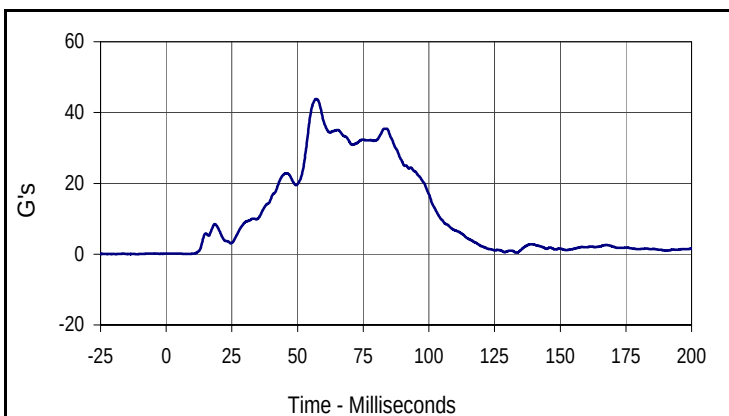
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2.2	138.3	-39.3	56.8



Curve Description			
Driver Chest Primary Y			
CURNO	Type	SAE Class	Units
005	FIL	180	G's
Max	Time	Min	Time
4.9	76.3	-4.6	57.0



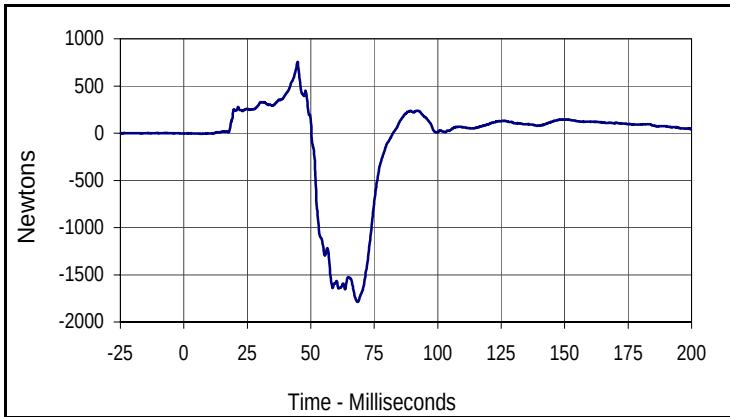
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CURNO	Type	SAE Class	Units
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Max	Time	Min	Time
12.8	82.7	-19.2	57.9



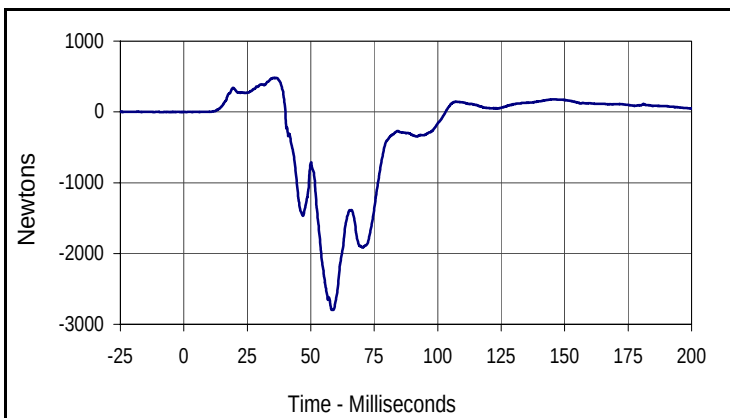
Curve Description			
Driver Chest Resultant Primary			
CURNO	Type	SAE Class	Units
004	RES	180	G's
Max	Time	Min	Time
43.8	57.2	0.0	7.9

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV
 Test Program: NHTSA 35mph NCAP

Test Date: 6/12/08
 NHTSA No.: M95300



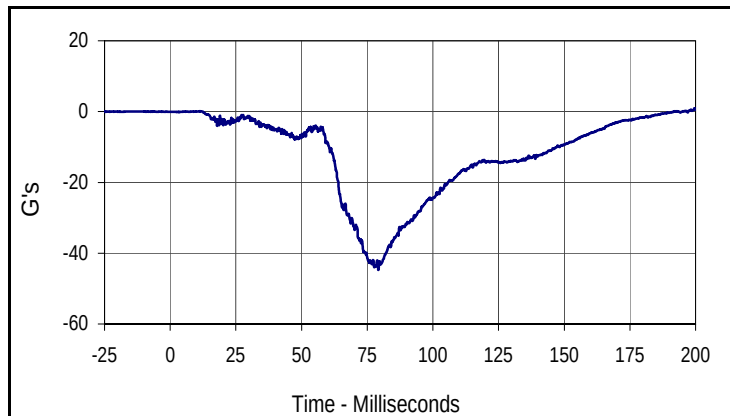
Curve Description			
Driver Left Femur Force Z			
CURNO	Type	SAE Class	Units
007	FIL	600	Newtons
Max	Time	Min	Time
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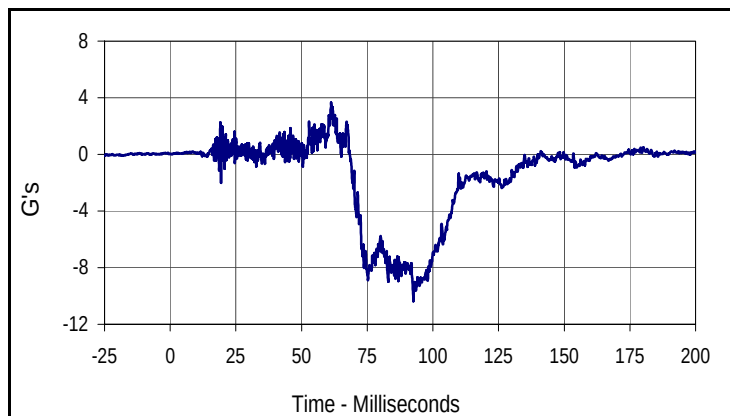
Curve Description			
Driver Right Femur Force Z			
CURNO	Type	SAE Class	Units
008	FIL	600	Newtons
Max	Time	Min	Time
479.7	35.3	-2798.8	58.4

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV
 Test Program: NHTSA 35mph NCAP

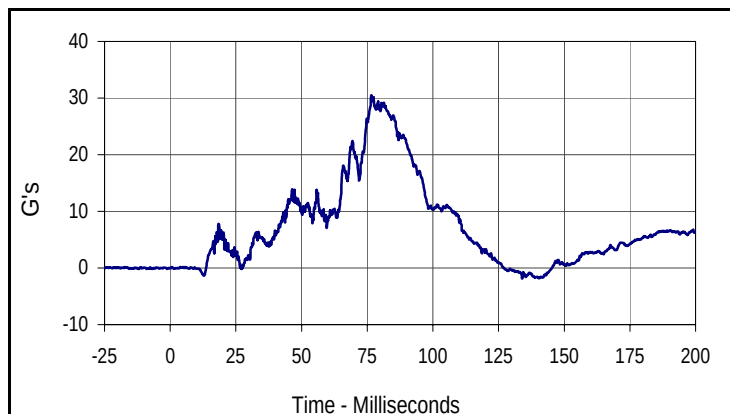
Test Date: 6/12/08
 NHTSA No.: M95300



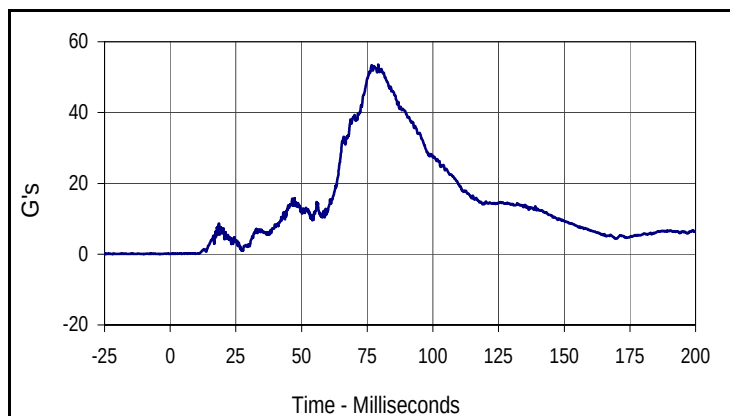
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Passenger Head Primary X			
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Max	Time	Min	Time
0.9	199.6	-44.7	79.3



Curve Description			
Passenger Head Primary Y			
CURNO	Type	SAE Class	Units
010	FIL	1000	G's
Max	Time	Min	Time
3.7	61.3	-10.4	92.6



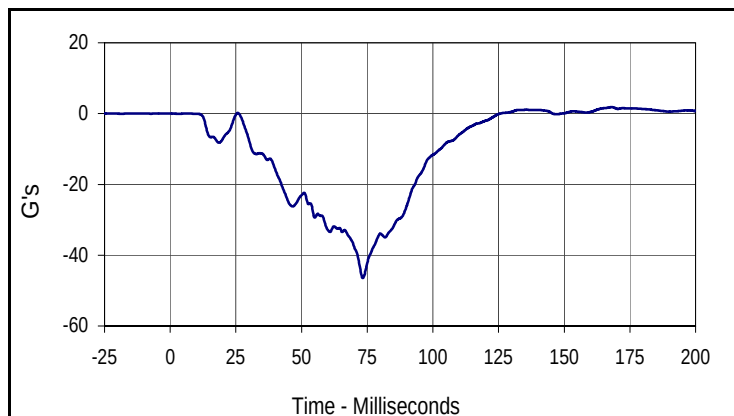
Curve Description			
Passenger Head Primary Z			
CURNO	Type	SAE Class	Units
011	FIL	1000	G's
Max	Time	Min	Time
30.5	76.6	-1.9	134.0



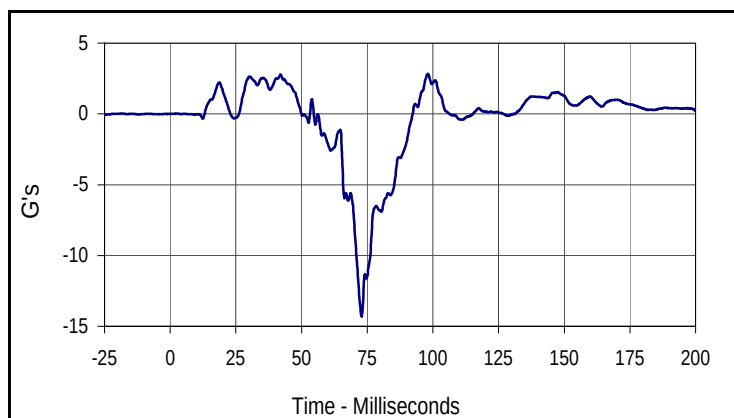
Curve Description			
Passenger Head Resultant Primary			
CURNO	Type	SAE Class	Units
009	RES	1000	G's
Max	Time	Min	Time
53.6	79.2	0.1	4.6

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV
 Test Program: NHTSA 35mph NCAP

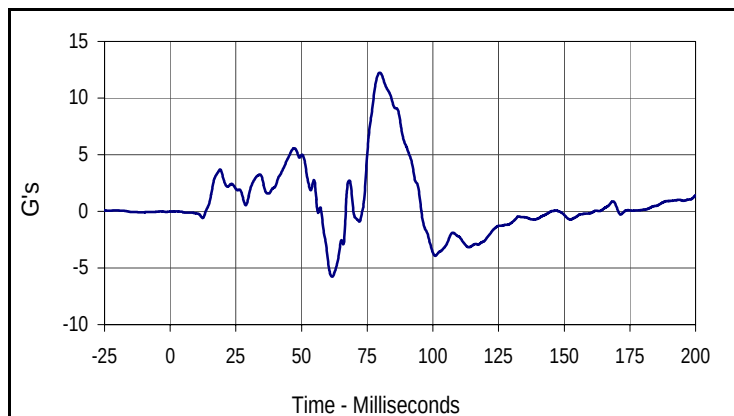
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 NHTSA No.: M95300



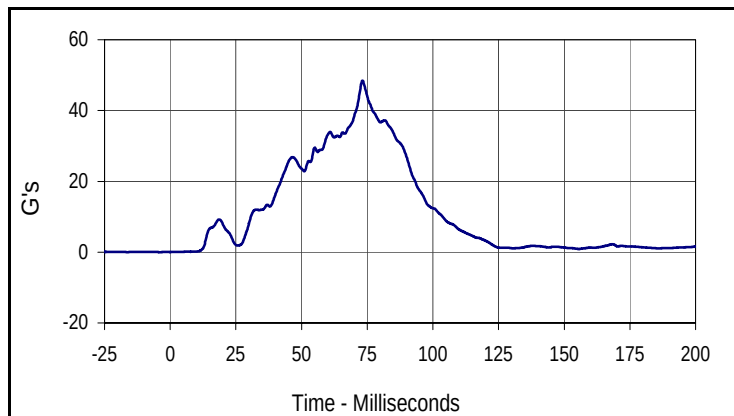
Curve Description			
Passenger Chest Primary X			
CURNO	Type	SAE Class	Units
012	FIL	180	G's
Max	Time	Min	Time
1.8	168.1	-46.5	73.3



Curve Description			
Passenger Chest Primary Y			
CURNO	Type	SAE Class	Units
013	FIL	180	G's
Max	Time	Min	Time
2.8	98.1	-14.3	72.9



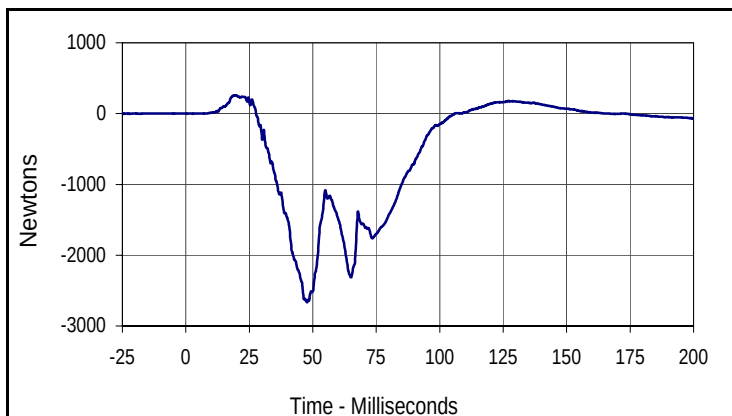
Curve Description			
Passenger Chest Primary Z			
CURNO	Type	SAE Class	Units
014	FIL	180	G's
Max	Time	Min	Time
12.2	79.7	-5.8	61.7



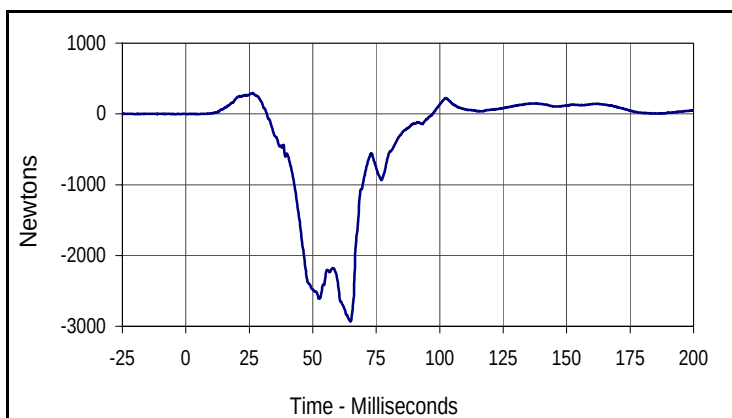
Curve Description			
Passenger Chest Resultant Primary			
CURNO	Type	SAE Class	Units
012	RES	180	G's
Max	Time	Min	Time
48.5	73.2	0.0	0.0

Test Vehicle: 2009 Honda Pilot EX 4WD 5-Door MPV
 Test Program: NHTSA 35mph NCAP

Test Date: 6/12/08
 NHTSA No.: M95300



Curve Description			
Passenger Left Femur Force Z			
CURNO	Type	SAE Class	Units
015	FIL	600	Newtons
Max	Time	Min	Time
260.6	19.7	-2666.5	47.7



Curve Description			
Passenger Right Femur Force Z			
CURNO	Type	SAE Class	Units
016	FIL	600	Newtons
Max	Time	Min	Time
293.2	26.3	-2931.9	64.9

APPENDIX C
DUMMY CALIBRATION DATA

Test Program: Hybrid III 50th Percentile Male Head Drop Test

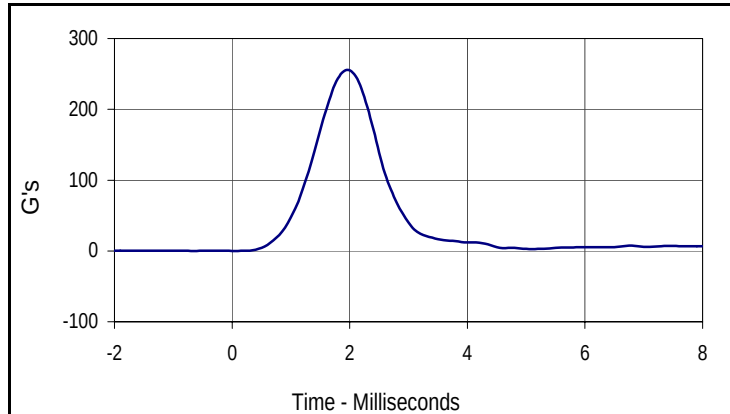
Test Date: 5/15/08

ATD Serial No.: 034

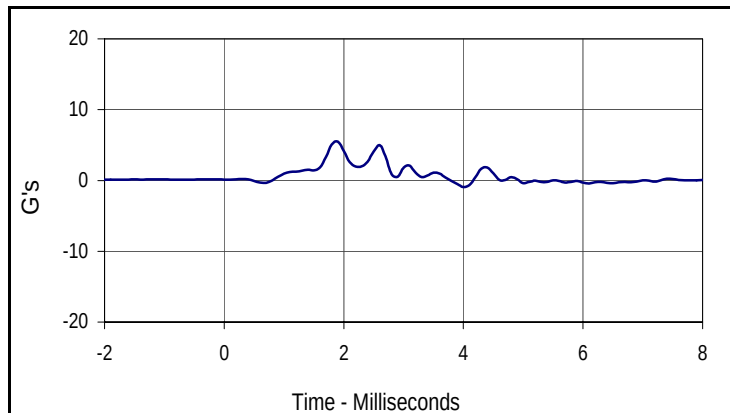
Test I.D.: HD05B



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	225.0 to 275.0	255.1	Pass
Peak Lateral Acceleration	G's	≤15.0	5.5	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
255.1	2.0	0.1	0.1



Curve Description			
Head Y			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
5.5	1.9	-0.9	4.0

Test Program: Hybrid III 50th Percentile Male Thorax Impact Test

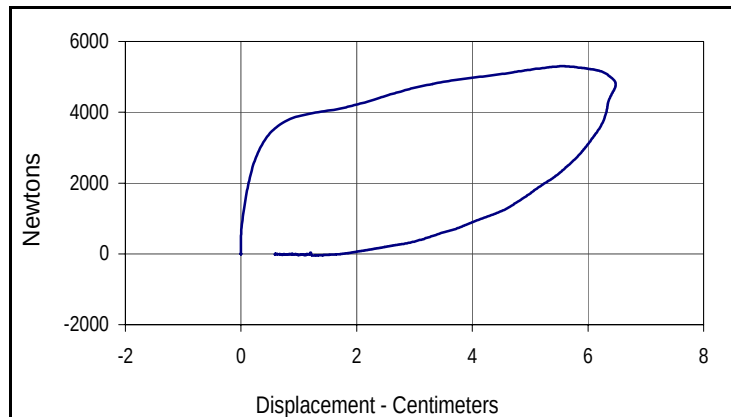
Test Date: 5/15/08

ATD Serial No.: 034

Test I.D.: CH05B



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	6.58 to 6.82	6.63	Pass
Peak Probe Force	Newtons	5159 to 5893	5304	Pass
Peak Sternum Deflection	CM	6.35 to 7.26	6.48	Pass
Internal Hysteresis	%	69 to 85	78.8	Pass
Overall Test Results			Pass	



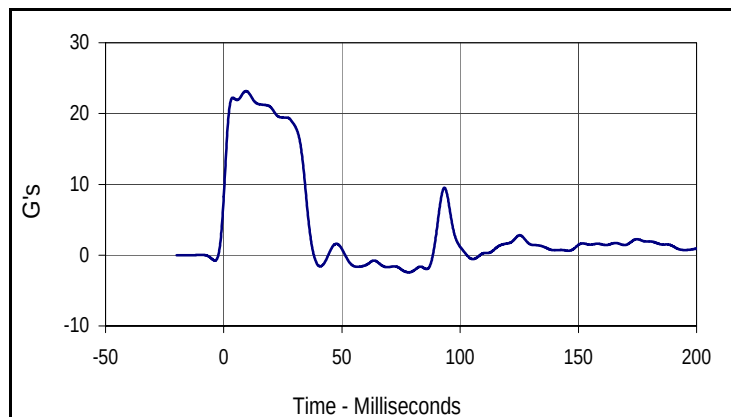
Curve Description			
Probe Force vs. Chest Deflection			
CURNO	Type	SAE Class	Hysteresis
001	FIL	180	78.8
Peak Probe Force		Peak Chest Deflection	
5304		6.48	

Test Program: Hybrid III 50th Percentile Male Neck Flexion Test
 ATD Serial No.: 034

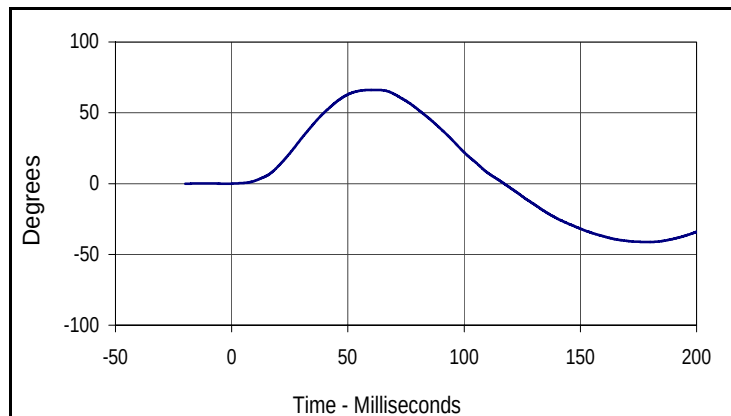
Test Date: 5/15/08
 Test I.D.: NF05B



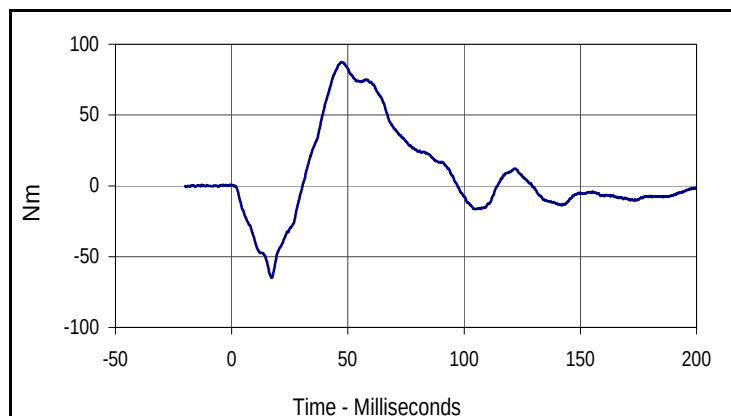
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	6.89 to 7.13	7.04	Pass
Pendulum Deceleration	10 Msec.	G's	22.5 to 27.5	23.1	Pass
	20 Msec.	G's	17.6 to 22.6	20.8	Pass
	30 Msec.	G's	12.5 to 18.5	18.3	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 29.0	18.3	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	34.0 to 42.0	35.9	Pass
Maximum "D" Plane Rotation	Max	Degrees	64.0 to 78.0	66.2	Pass
	Time	Msec.	57.0 to 64.0	61.2	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	113.0 to 128.0	117.2	Pass
Moment About Occ. Condyle	Max	Nm	84.1 to 108.5	87.3	Pass
	Time	Msec.	47.0 to 58.0	47.4	Pass
Positive Moment Decay, Time To Zero Crossing		Msec.	97.0 to 107.0	97.2	Pass
Overall Test Results					Pass



Curve Description			
Pendulum Deceleration			
CURNO	Type	SAE Class	Units
001	FIL	60	G's
Max	Time	Min	Time
23.2	9.4	-2.4	78.2



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
66.2	61.2	-41.2	180.1



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
87.3	47.4	-65.0	17.2

Test Program: Hybrid III 50th Percentile Male Neck Extension Test

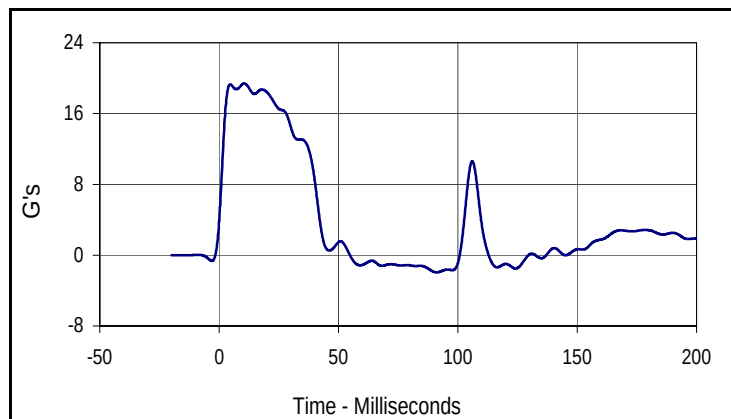
Test Date: 5/15/08

ATD Serial No.: 034

Test I.D.: NE05B



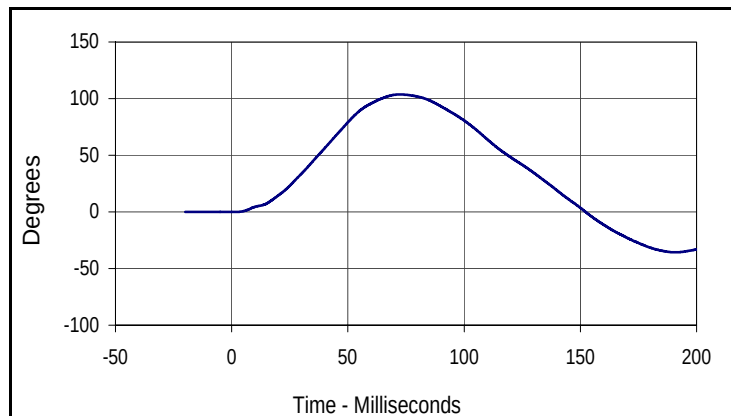
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	5.94 to 6.19	6.16	Pass
Pendulum Deceleration	10 Msec.	G's	17.2 to 21.2	19.4	Pass
	20 Msec.	G's	14.0 to 19.0	18.4	Pass
	30 Msec.	G's	11.0 to 16.0	14.5	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 22.0	14.5	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	38.0 to 46.0	41.7	Pass
Maximum "D" Plane Rotation	Max	Degrees	81.0 to 106.0	103.7	Pass
	Time	Msec.	72.0 to 82.0	72.3	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	147.0 to 174.0	152.3	Pass
Moment About Occ. Condyle	Max	Nm	-52.9 to- 79.9	-72.0	Pass
	Time	Msec.	65.0 to 79.0	67.0	Pass
Positive Moment Decay, Time To Zero Crossing		Msec.	120.0 to 148.0	140.7	Pass
Overall Test Results					Pass



Curve Description

Pendulum Deceleration

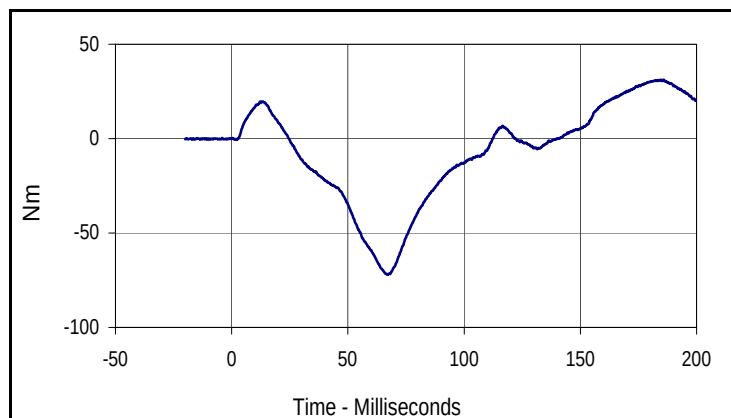
CURNO	Type	SAE Class	Units
001	FIL	60	G's
Max	Time	Min	Time
19.4	10.5	-1.9	91.2



Curve Description

"D" Plane Rotation

CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
103.7	72.3	-35.7	190.8



Curve Description

Moment About Occipital Condyle

CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
31.1	184.8	-72.0	67.0

Test Program: Hybrid III 50th Percentile Male Knee Impact Test

Test Date: 5/15/08

ATD Serial No.: 034

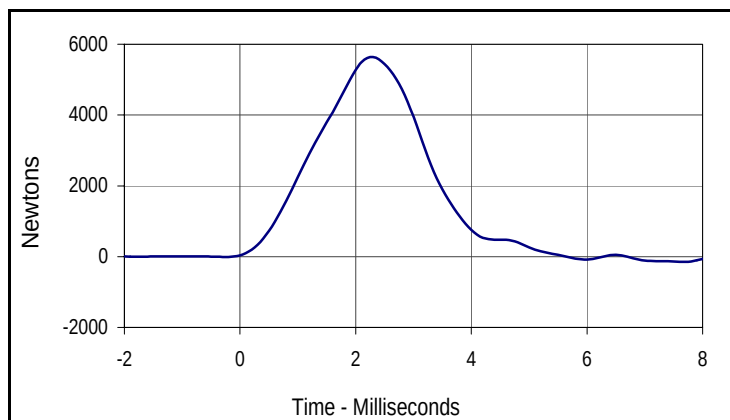
Test I.D.: LK05B , RK05B

**Left Knee**

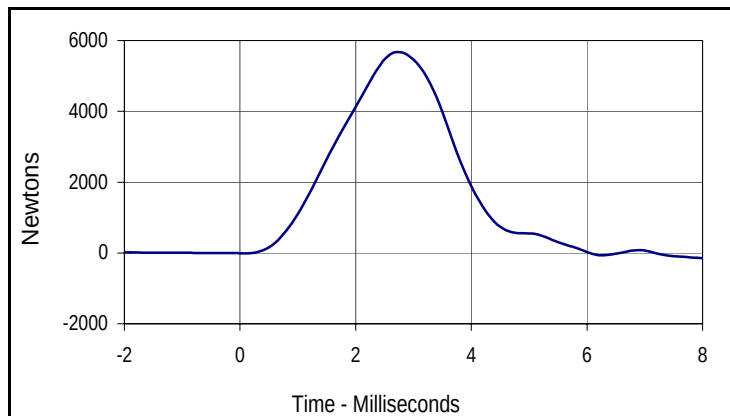
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity at T=0	m/sec	2.07 to 2.13	2.12	Pass
Peak Probe Force	Newtons	4715 to 5782	5637	Pass
Overall Test Results			Pass	

Right Knee

Pendulum Velocity at T=0	m/sec	2.07 to 2.13	2.12	Pass
Peak Probe Force	Newtons	4715 to 5782	5678	Pass
Overall Test Results			Pass	

**Curve Description****Left Knee Probe Force**

CURNO	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Time	Min	Time
5636.8	2.3	-154.5	9.0

**Curve Description****Right Knee Probe Force**

CURNO	Type	SAE Class	Units
002	FIL	600	Newtons
Max	Time	Min	Time
5678.4	2.7	-147.3	8.0

Test Program: Hybrid III 50th Percentile Male External Measurements

Test Date: 5/15/08

ATD Serial No.: 034

Test I.D.: N/A



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
A - Total sitting height	mm	879 to 889	882	Pass
B - Shoulder pivot height	mm	505 to 521	517	Pass
C - "H" point height	mm	84 to 89	86	Pass
D - "H" point from seat back	mm	135 to 140	138	Pass
E - Shoulder pivot from back	mm	84 to 94	89	Pass
F - Thigh clearance	mm	140 to 155	146	Pass
G - Elbow back to wrist pivot	mm	290 to 305	297	Pass
H - Skull cap to back line	mm	41 to 46	44	Pass
I - Shoulder to elbow length	mm	330 to 345	342	Pass
J - Elbow rest height	mm	190 to 211	196	Pass
K - Buttock to knee length	mm	579 to 604	597	Pass
L - Popliteal length	mm	429 to 455	451	Pass
M - Knee pivot height	mm	485 to 500	490	Pass
N - Buttock popliteal length	mm	452 to 477	472	Pass
O - Chest depth	mm	213 to 229	216	Pass
P - Foot length	mm	251 to 267	258	Pass
V - Shoulder breadth	mm	422 to 437	432	Pass
W - Foot breadth	mm	91 to 107	103	Pass
Y - Chest circumference	mm	970 to 1001	997	Pass
Z - Waist circumference	mm	836 to 866	861	Pass
AA - Location for chest circumference	mm	429 to 434	432	Pass
BB - Location for waist circumference	mm	226 to 231	230	Pass
Overall Test Results				Pass

Test Program: Hybrid III 50th Percentile Male Head Drop Test

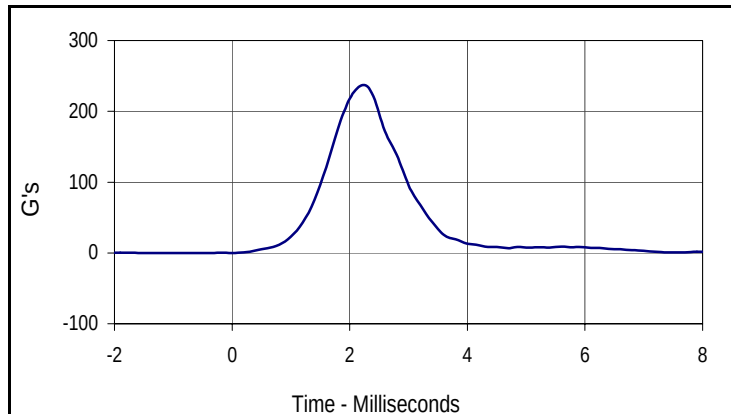
Test Date: 5/16/08

ATD Serial No.: 035

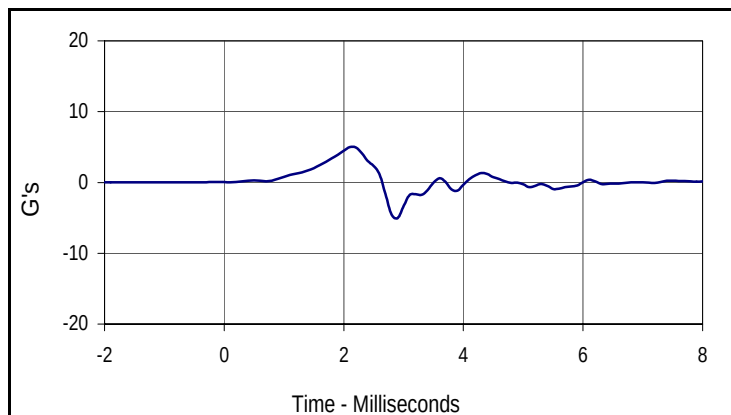
Test I.D.: HD05A



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	225.0 to 275.0	236.9	Pass
Peak Lateral Acceleration	G's	≤15.0	5.0	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
236.9	2.2	0.1	-0.9



Curve Description			
Head Y			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
5.0	2.1	-5.0	2.9

Test Program: Hybrid III 50th Percentile Male Thorax Impact Test

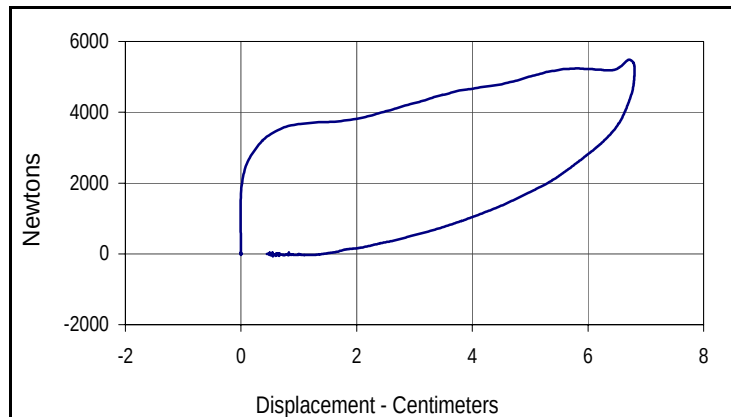
Test Date: 5/16/08

ATD Serial No.: 035

Test I.D.: CH05A



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	6.58 to 6.82	6.63	Pass
Peak Probe Force	Newtons	5159 to 5893	5486	Pass
Peak Sternum Deflection	CM	6.35 to 7.26	6.81	Pass
Internal Hysteresis	%	69 to 85	74.4	Pass
Overall Test Results			Pass	



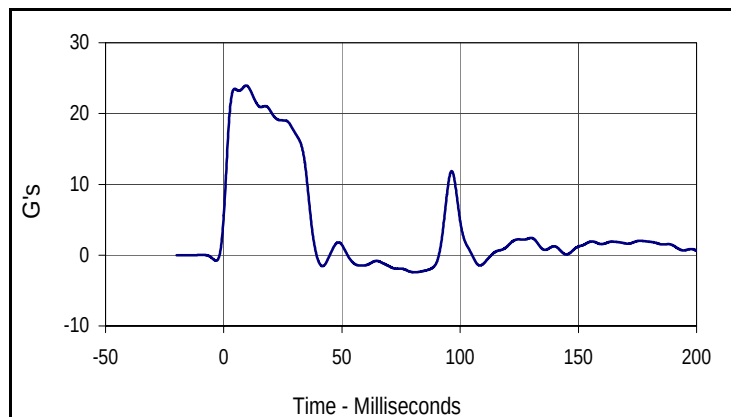
Curve Description			
Probe Force vs. Chest Deflection			
CURNO	Type	SAE Class	Hysteresis
001	FIL	180	74.4
Peak Probe Force		Peak Chest Deflection	
5486		6.81	

Test Program: Hybrid III 50th Percentile Male Neck Flexion Test
 ATD Serial No.: 035

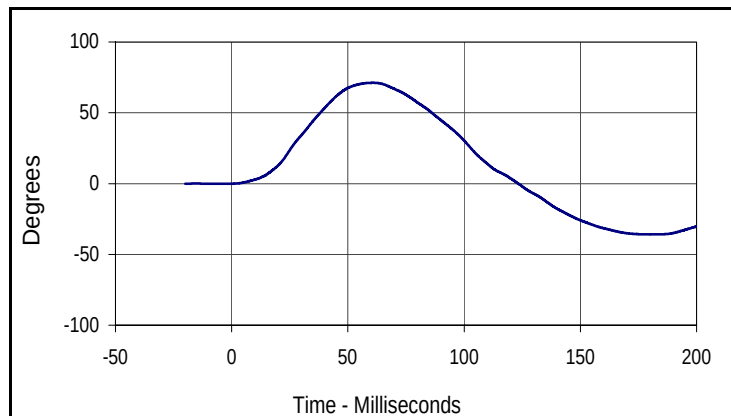
Test Date: 5/16/08
 Test I.D.: NF05A



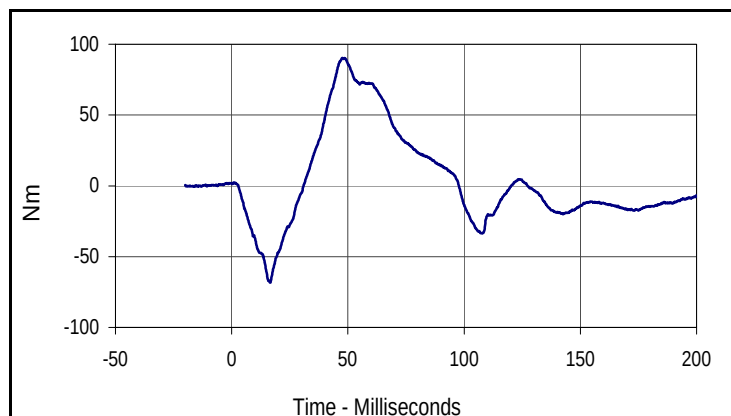
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	6.89 to 7.13	7.04	Pass
Pendulum Deceleration	10 Msec.	G's	22.5 to 27.5	23.9	Pass
	20 Msec.	G's	17.6 to 22.6	20.2	Pass
	30 Msec.	G's	12.5 to 18.5	17.4	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 29.0	17.4	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	34.0 to 42.0	36.9	Pass
Maximum "D" Plane Rotation	Max	Degrees	64.0 to 78.0	71.2	Pass
	Time	Msec.	57.0 to 64.0	60.9	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	113.0 to 128.0	123.3	Pass
Moment About Occ. Condyle	Max	Nm	84.1 to 108.5	90.3	Pass
	Time	Msec.	47.0 to 58.0	47.7	Pass
Positive Moment Decay, Time To Zero Crossing		Msec.	97.0 to 107.0	97.8	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Deceleration			
CURNO	Type	SAE Class	Units
001	FIL	60	G's
Max	Time	Min	Time
23.9	9.5	-2.4	80.8



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
71.2	60.9	-35.8	183.5



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
90.3	47.7	-68.5	16.5

Test Program: Hybrid III 50th Percentile Male Neck Extension Test

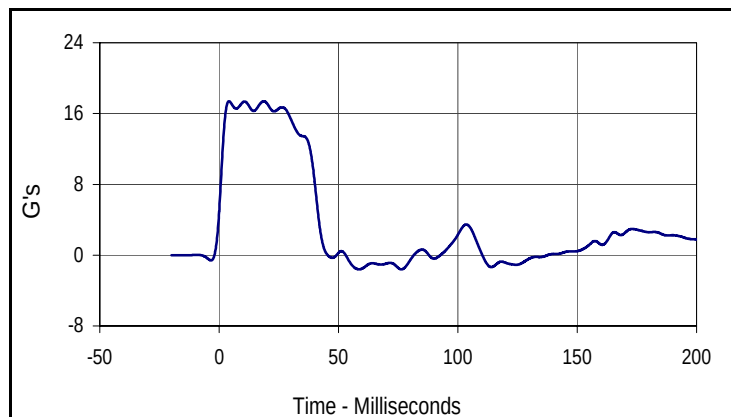
Test Date: 5/16/08

ATD Serial No.: 035

Test I.D.: NE05A



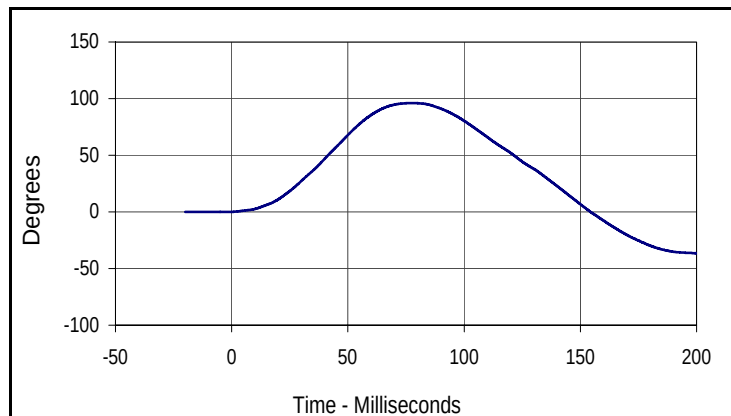
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	5.94 to 6.19	6.16	Pass
Pendulum Deceleration	10 Msec.	G's	17.2 to 21.2	17.3	Pass
	20 Msec.	G's	14.0 to 19.0	17.2	Pass
	30 Msec.	G's	11.0 to 16.0	15.4	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 22.0	15.4	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	38.0 to 46.0	41.4	Pass
Maximum "D" Plane Rotation	Max	Degrees	81.0 to 106.0	96.0	Pass
	Time	Msec.	72.0 to 82.0	77.6	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	147.0 to 174.0	154.4	Pass
Moment About Occ. Condyle	Max	Nm	-52.9 to- 79.9	-76.4	Pass
	Time	Msec.	65.0 to 79.0	68.3	Pass
Positive Moment Decay, Time To Zero Crossing		Msec.	120.0 to 148.0	142.3	Pass
Overall Test Results				Pass	



Curve Description

Pendulum Deceleration

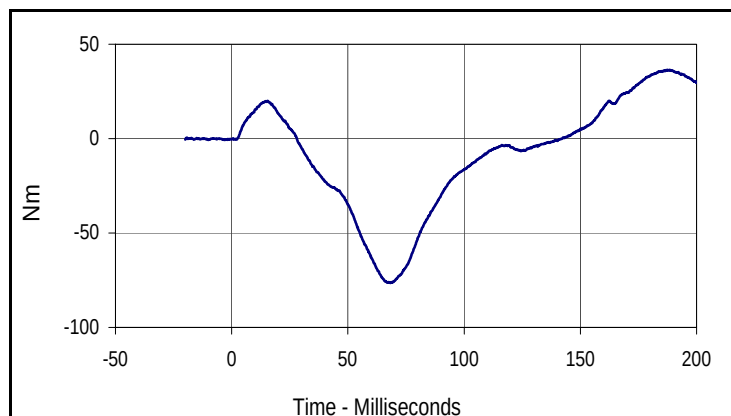
CURNO	Type	SAE Class	Units
001	FIL	60	G's
Max	Time	Min	Time
17.4	4.1	-1.6	58.6



Curve Description

"D" Plane Rotation

CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
96.0	77.6	-36.4	200.0



Curve Description

Moment About Occipital Condyle

CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
36.4	187.5	-76.4	68.3

Test Program: Hybrid III 50th Percentile Male Knee Impact Test

Test Date: 5/16/08

ATD Serial No.: 035

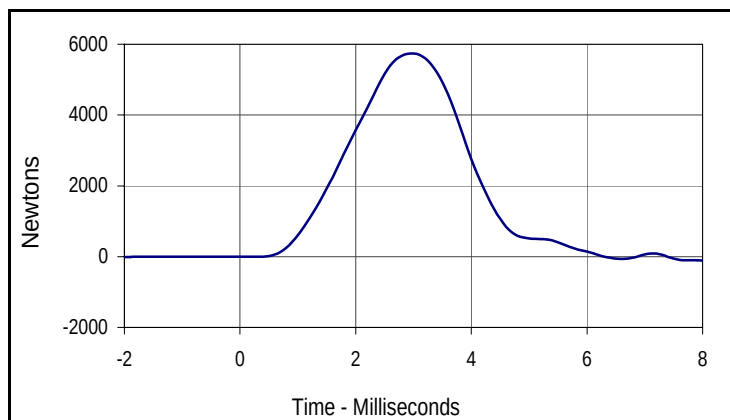
Test I.D.: LK05A , RK05A

**Left Knee**

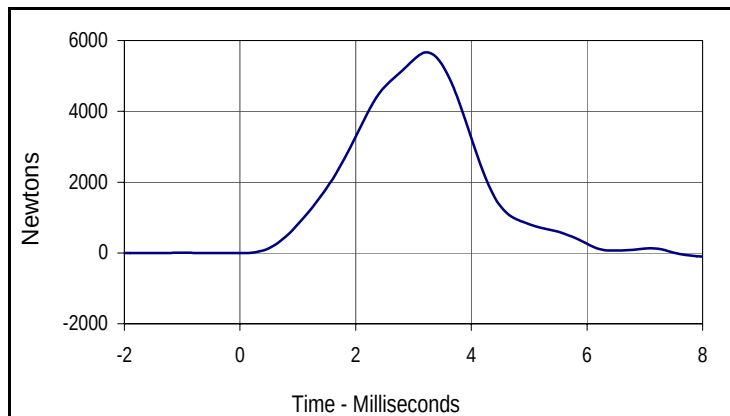
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity at T=0	m/sec	2.07 to 2.13	2.10	Pass
Peak Probe Force	Newtons	4715 to 5782	5738	Pass
Overall Test Results				Pass

Right Knee

Pendulum Velocity at T=0	m/sec	2.07 to 2.13	2.12	Pass
Peak Probe Force	Newtons	4715 to 5782	5664	Pass
Overall Test Results				Pass

**Curve Description****Left Knee Probe Force**

CURNO	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Time	Min	Time
5737.7	3.0	-157.2	8.4

**Curve Description****Right Knee Probe Force**

CURNO	Type	SAE Class	Units
002	FIL	600	Newtons
Max	Time	Min	Time
5664.0	3.2	-114.1	9.9

Test Program: Hybrid III 50th Percentile Male External Measurements

Test Date: 5/16/08

ATD Serial No.: 035

Test I.D.: N/A



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
A - Total sitting height	mm	879 to 889	881	Pass
B - Shoulder pivot height	mm	505 to 521	518	Pass
C - "H" point height	mm	84 to 89	85	Pass
D - "H" point from seat back	mm	135 to 140	139	Pass
E - Shoulder pivot from back	mm	84 to 94	90	Pass
F - Thigh clearance	mm	140 to 155	148	Pass
G - Elbow back to wrist pivot	mm	290 to 305	299	Pass
H - Skull cap to back line	mm	41 to 46	45	Pass
I - Shoulder to elbow length	mm	330 to 345	340	Pass
J - Elbow rest height	mm	190 to 211	195	Pass
K - Buttock to knee length	mm	579 to 604	598	Pass
L - Popliteal length	mm	429 to 455	452	Pass
M - Knee pivot height	mm	485 to 500	493	Pass
N - Buttock popliteal length	mm	452 to 477	471	Pass
O - Chest depth	mm	213 to 229	219	Pass
P - Foot length	mm	251 to 267	258	Pass
V - Shoulder breadth	mm	422 to 437	435	Pass
W - Foot breadth	mm	91 to 107	100	Pass
Y - Chest circumference	mm	970 to 1001	980	Pass
Z - Waist circumference	mm	836 to 866	860	Pass
AA - Location for chest circumference	mm	429 to 434	431	Pass
BB - Location for waist circumference	mm	226 to 231	228	Pass
Overall Test Results				Pass

Test Program: Dummy Damage Checklist
 ATD Serial No.: 034

Test Date: 5/16/08
 Test I.D.: N/A



GENERAL	DAMAGED	OK
Outer skin on entire dummy		X
Head ballast secure		X
Gashes, rips, general appearance, etc.		X
Neck-Broken or cracks in rubber		X
Check that upper neck bracket is firmly attached to lwr neck bracket		X
Three rubber bumpers in place		X
Spine- Broken or cracks in rubber		X
Check for looseness at the condyle joint		X
Nodding blocks- cracked or out of position		X
Ribs- Check all ribs and rib supports for damage (bent or broken)		X
Check damping material or separation or cracks		X
OTHER		
CHEST DISPLACEMENT ASSEMBLY		
Bent shaft		X
Slider arm riding correctly, in track		X
TRANSDUCER LEADS		
Torn cables		X
ACCELEROMETER MOUNTINGS		
Check for secure mounting		X
KNEES		
Check outer skin, insert and casting (without removing insert)		X
Knee sliders - Wires intact		X
Knee sliders- Rubber returned to "at rest position"		X
LIMBS		
Check for normal movement and adjustment		X
PELVIS		
Inspect for breakage, especially at iliac crest		X

Comments on repair or replacement parts:

Test Program: Dummy Damage Checklist
 ATD Serial No.: 035

Test Date: 5/16/08
 Test I.D.: N/A



GENERAL	DAMAGED	OK
Outer skin on entire dummy		X
Head ballast secure		X
Gashes, rips, general appearance, etc.		X
Neck-Broken or cracks in rubber		X
Check that upper neck bracket is firmly attached to lwr neck bracket		X
Three rubber bumpers in place		X
Spine- Broken or cracks in rubber		X
Check for looseness at the condyle joint		X
Nodding blocks- cracked or out of position		X
Ribs- Check all ribs and rib supports for damage (bent or broken)		X
Check damping material or separation or cracks		X
OTHER		
CHEST DISPLACEMENT ASSEMBLY		
Bent shaft		X
Slider arm riding correctly, in track		X
TRANSDUCER LEADS		
Torn cables		X
ACCELEROMETER MOUNTINGS		
Check for secure mounting		X
KNEES		
Check outer skin, insert and casting (without removing insert)		X
Knee sliders - Wires intact		X
Knee sliders- Rubber returned to "at rest position"		X
LIMBS		
Check for normal movement and adjustment		X
PELVIS		
Inspect for breakage, especially at iliac crest		X

Comments on repair or replacement parts:
