

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

**FORD MOTOR COMPANY
2007 FORD EDGE SE AWD
5-DOOR MPV**

NHTSA NUMBER: M70201

**PREPARED BY:
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JANUARY 18, 2007

FINAL REPORT

**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
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16. Abstract A 35 mph (56.3 km/h) frontal barrier impact was conducted on a 2007 Ford Edge SE AWD 5-Door MPV at Karco Engineering, LLC on 01/18/07. This test was conducted to obtain data indicant of FMVSS 208, 212, 219 (partial), 301, and footwell intrusion performance. The impact velocity is 55.94 km/h. The ambient temperature at the barrier face at the time of impact is 8.9 degrees Celcius. The vehicle's maximum post-test static crush is 432 mm at the vehicle's centerline. The test vehicle is equipped with a 3-point continuous belt system and second generation supplemental airbags in both front outboard seating 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	454.4	851.5
Max. Chest Accel. (3 msec Clip)		G's	60	42.2	48.2
Left Femur Force		Newtons	10008	-2550.5	-3634.7
Right Femur Force		Newtons	10008	-2753.0	-2936.4
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SECTION 1

PURPOSE AND SUMMARY OF TEST M70201

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 45 load cells was impacted by a 2007 Ford Edge SE AWD 5-Door MPV at a velocity of 55.94 km/h. The test was performed at Karco Engineering, LLC on January 18, 2007.

Three (3) real-time and fifteen (15) 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. 192) and the right-front passenger (position 2) ATD (Serial No. 360) were calibrated prior to this test.

One hundred and forty one (141) 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 percent windshield retention and there was no intrusion into the protected zone of the windshield during the impact event. 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 432 mm at the vehicle's centerline and both the driver and the 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 and chest contacted the airbag and the abdomen had no contact. Both knees contacted the knee bolster.

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

Occupant injury data is contained in table below.

OCCUPANT DATA SUMMARY					
ATD Position	HIC 36	Clip (g)	Chest Defl. (mm)	Left Femur (N)	Right Femur (N)
Driver	454.4	42.2	-38.3	-2550.5	-2753.0
Passenger	851.5	48.2	-35.3	-3634.7	-2936.4

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: 2007 Ford Edge SE AWD 5-Door MPV

NHTSA No.: M70201

Test Program: 2007 NHTSA 35mph NCAP

Test Date: 1/18/07

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: 2007 Ford Edge SE AWD 5-Door MPV

NHTSA No.: M70201

Test Program: 2007 NHTSA 35mph NCAP

Test Date: 1/18/07

PRIMARY IMPACT DATA

Measured Parameter	Units	Value
Velocity at Impact	km/h	55.94
Test Weight	kg	2176
Impact Angle	degrees	0
Average Rebound	mm	957
Maximum Static Crush	mm	432

DOOR OPENING AND SEAT TRACK INFORMATION

Description	Driver	Passenger
Front Door opening	Remained closed and latched, opened w/o tools	Remained closed and latched, opened w/o tools
Rear Door Opening	Remained closed and latched, opened w/o tools	Remained closed and latched, opened w/o tools
Seat Track Shift (mm)	None	None
Seat Back Failure	No	No

TEST DUMMY INFORMATION

Description	Driver	Passenger
Dummy Type/ Serial No.	50% Male Hybrid III No. 192	50% Male Hybrid III No. 360
Head Contact	Airbag	Airbag
Chest Contact	Airbag	Airbag
Abdomen Contact	None	Airbag
Left Knee Contact	Knee Bolster	Knee Bolster
Right Knee Contact	Knee Bolster	Knee Bolster

MOVIE COVERAGE

Cameras	Standard	Additional
High Speed	13	3
Real Time	1	2
Total	14	5

DATA CHANNELS

Driver ATD Sensors	40
Passenger ATD Sensors	40
Belt Assessment Sensors	8
Vehicle Structure Accelerometers	8
Rigid Barrier Load Cells	45
Total	141

DATA SHEET NO. 2
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07

TEST VEHICLE INFORMATION AND OPTIONS

NHTSA No.	M70201	Anti-Lock Brakes	Yes
Make	Ford	All Wheel Drive	Yes
Model	Edge SE AWD	Power Steering	Yes
Body Style	5-Door MPV	Driver Front Airbag	Yes
Vin No.	2FMDK46C77BA54520	Driver Side Airbag	Yes
Color	Tan	Driver Head Airbag	No
Delivery Date	1/10/2007	Driver Curtain Airbag	Yes
Odometer (Miles)	55.3	Pass. Airbag	Yes
Dealer	Sunrise Ford	Pass. Side Airbag	Yes
Transmission	6-Speed Automatic	Pass. Head Airbag	No
Final Drive	AWD	Pass. Curtain Airbag	Yes
Type/No. Cyl.	V6	Pre-Tensioners	Yes
Engine Disp. (L)	3.5	Load Limiters	Yes
Engine Placement	Transverse	Bucket Seats	Yes
Roof Rack	No	Air. Cond.	Yes
Sunroof/T-Top	No	AM/FM Cassette	Yes
Tinted Glass	Yes	Tilt Steering	Yes
Traction Control	Yes	Automatic Door Locks	Yes
Power Brakes	Yes	Power Windows	Yes
Front Disc	Yes	Power Seats	No
Rear Disc	Yes	Other	None

Does Owners Manual provide instructions to turn off automatic door locks.

Yes

DATA FROM MANUFACTURER

Manufactured By	Ford Motor Company	GWR (kg)	2490
Date of Manufacture	Dec-06	GAWR Front (kg)	1315
		GAWR Rear (kg)	1184

VEHICLE SEATING AND CAPACITY WEIGHT INFORMATION

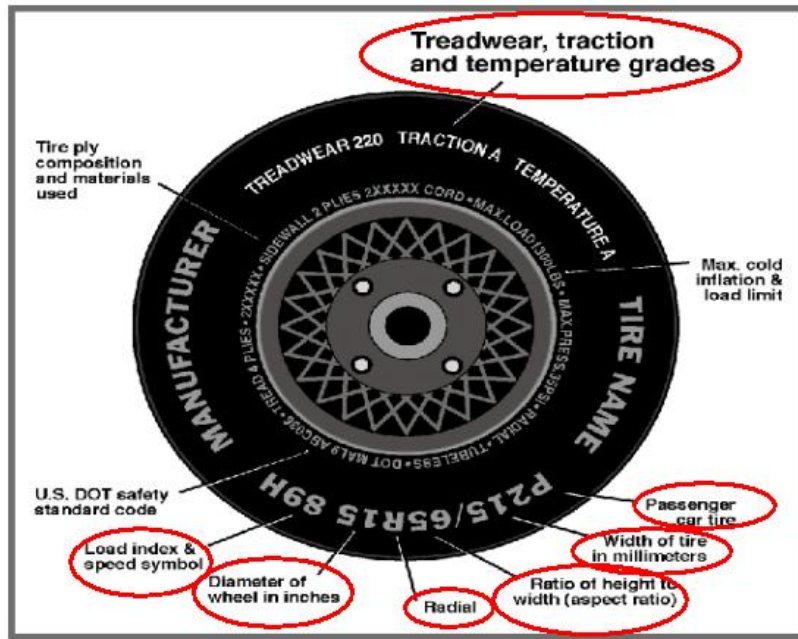
Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bucket		
Number of Occupants	2	3		5
Capacity Weight (VCW) (kg)				412
Cargo Weight (RCLW) (kg)				72

DATA SHEET NO. 2...(CONTINUED)
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07

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)	308	308
Cold Pressure (kpa)	240	240
Recommended Tire Size	P235/65R17	P235/65R17
Tire Size on Vehicle	P235/65R17	P235/65R17
Tire Manufacturer	Hankook	Hankook
Treadwear	440	440
Traction	B	B
Temperature Grades	A	A
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	103T	103T
Tire Material	Polyester + Steel + Nylon	Polyester + Steel + Nylon
DOT Safety Code Right	DOT 5M7C PJNH 3406	DOT 5M7C PJNH 3406
DOT Safety Code Left	DOT 5M7C PJNH 3406	DOT 5M7C PJNH 3406

DATA SHEET NO. 2...(CONTINUED)
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07

TEST VEHICLE WEIGHTS

	Units	As Delivered Weights (UVW)			As Tested Weights (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	578	413	991	610	493	1103
Right	kg	563	406	969	585	488	1073
Ratio	%	58.2	41.8	100	54.9	45.1	100
Totals	kg	1141	819	1960	1195	981	2176

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1961
Weight of 2 P572 ATD's	kg	152
Rated Cargo/Luggage Wt. (RCLW)	kg	72
Calculated Vehicle Target Wt. (TVTW)	kg	2185

TEST VEHICLE ATTITUDE AND CG

	Units	LF	RF	LR	RR	CG (aft of front axle)
As Delivered	mm	851	852	853	859	1183
As Tested	mm	830	830	832	833	1276

Vehicle Wheel Base (mm) 2830

Weight of Ballast Secured in cargo area (kg) 0

Weight of Items Removed (kg) 69

Vehicle Components Removed Side Trim Panels, Insulation, Tailights, Wiper Motor, Rear Hatch Trim

* Ballast weight does not include cameras, instrumentation and brake abort system.

FUEL SYSTEM DATA

Fuel System Capacity From Owners Manual (L) 75.70

Actual Test Volume with entire fuel System Filled (L) 70.40

Test Fluid Type: Stoddard Solvent

Kinematic Viscosity: as per ASTM Standard D484-71 Red

Is Vehicle Fuel Pump Electric or Mechanical? Electric

If electric, does pump operate with ignition switch "On" & engine "OFF" Yes

Fuel System Particulars: Electric fuel pump. Activated when electrical system is activated
Fuel pump will run for 3 seconds when ignition is in "on" position.

POST-TEST IMPACT DATA

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV

NHTSA No.: M70201

Test Program: 2007 NHTSA 35mph NCAP

Test Date: 1/18/07

SPEED TRAP DATA

Measured Parameter	Units	Requirement	Value
Trap No.1 Velocity (Primary)	km/h	55.51 to 57.12	55.94
Trap No.2 Velocity (Redun.)	km/h	55.51 to 57.12	55.90

VEHICLE STATIC CRUSH

Measured Parameter	Units	Pre-Test	Post-Test	Difference
Left Side	mm	4505	4191	-314
Center	mm	4690	4258	-432
Right Side	mm	4505	4201	-304

VEHICLE REBOUND FROM BARRIER

Measured Parameter	Units	Value
Left Side	mm	980
Center	mm	910
Right Side	mm	980
Average	mm	957

TEST VEHICLE INFORMATION

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07

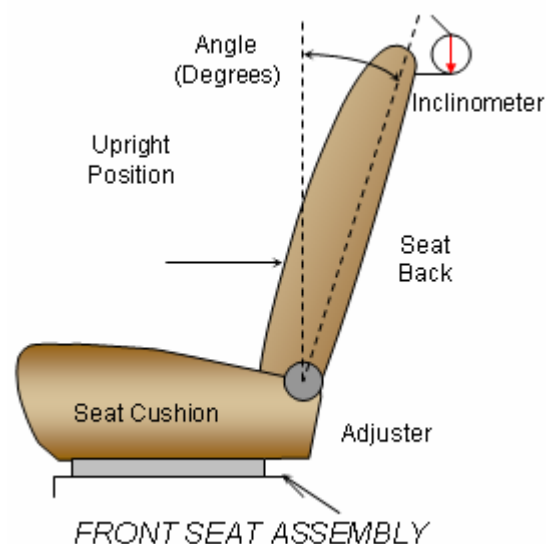
NOMINAL DESIGN RIDING POSITION

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 of the seat using a digital inclinometer.

SEAT BACK ANGLES

	Deg.
Driver w/seated Dummy	7.4 @ Headrest
Passenger w/seated Dummy	7.4 @ Headrest

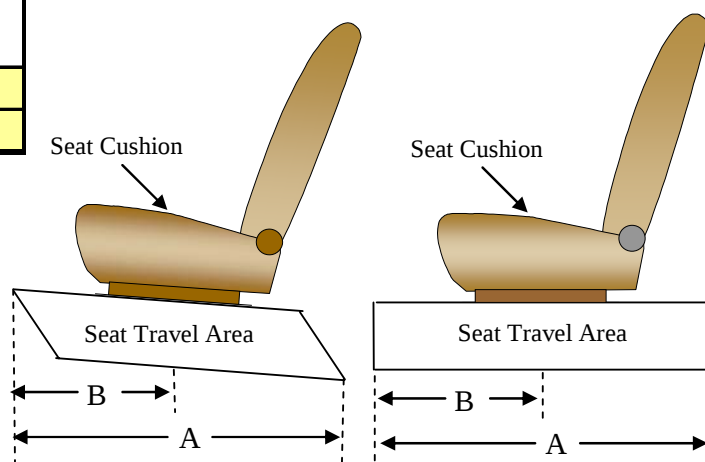


SEAT FORE/AFT POSITIONS

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 the vertical adjustment at the lowest position obtainable for the driver and passenger.

SEAT FORE/AFT POSITIONING

	Total Fore/Aft Travel	Placed in Position
Driver Seat	23 Detents	12 th Detent
Passenger Seat	23 Detents	12 th Detent



SEAT BELT UPPER ANCHORAGE

Position number one (1) is the uppermost position.

SEAT BELT UPPER ANCHORAGE

	Total # of Positions	Placed in Position #
Driver Seat	4	3
Passenger Seat	4	3

TEST VEHICLE INFORMATION

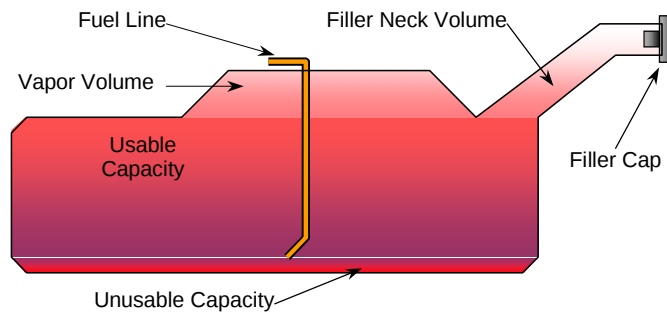
Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
Test Date: 1/18/07

FUEL TANK CAPACITY

	Liters
Usable Capacity of "Standard Tank"	75.70
Usable Capacity of "Optional" Tank	
Usable Capacity used for FMVSS 301	69.64 to 71.16
Actual Amount of Solvent used	70.40

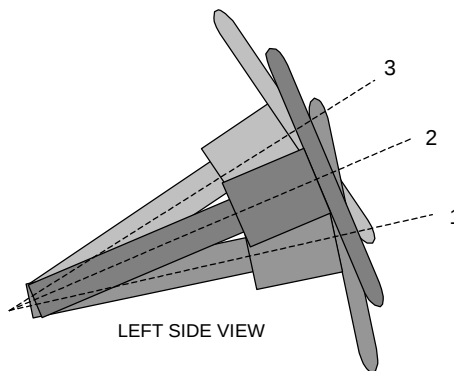
The test vehicle is equipped with an electric fuel pump. The fuel pump operates for approximately two seconds after the ignition is placed in the "ON" position, after which the fuel pump automatically shuts off. The fuel filler door is located on the left rear fender. The standard fuel tank occupies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



VEHICLE FUEL TANK ASSEMBLY

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.



LEFT SIDE VIEW

STEERING COLUMN POSITIONS

	Degrees	Fore/Aft Position (mm)
Lowermost position No. 1	24.4	174
Geometric center position No. 2	27.3	199
Uppermost position No. 3	30.2	224

DATA SHEET NO. 5
DUMMY POSITIONING IN VEHICLE

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
Test Date: 1/18/07

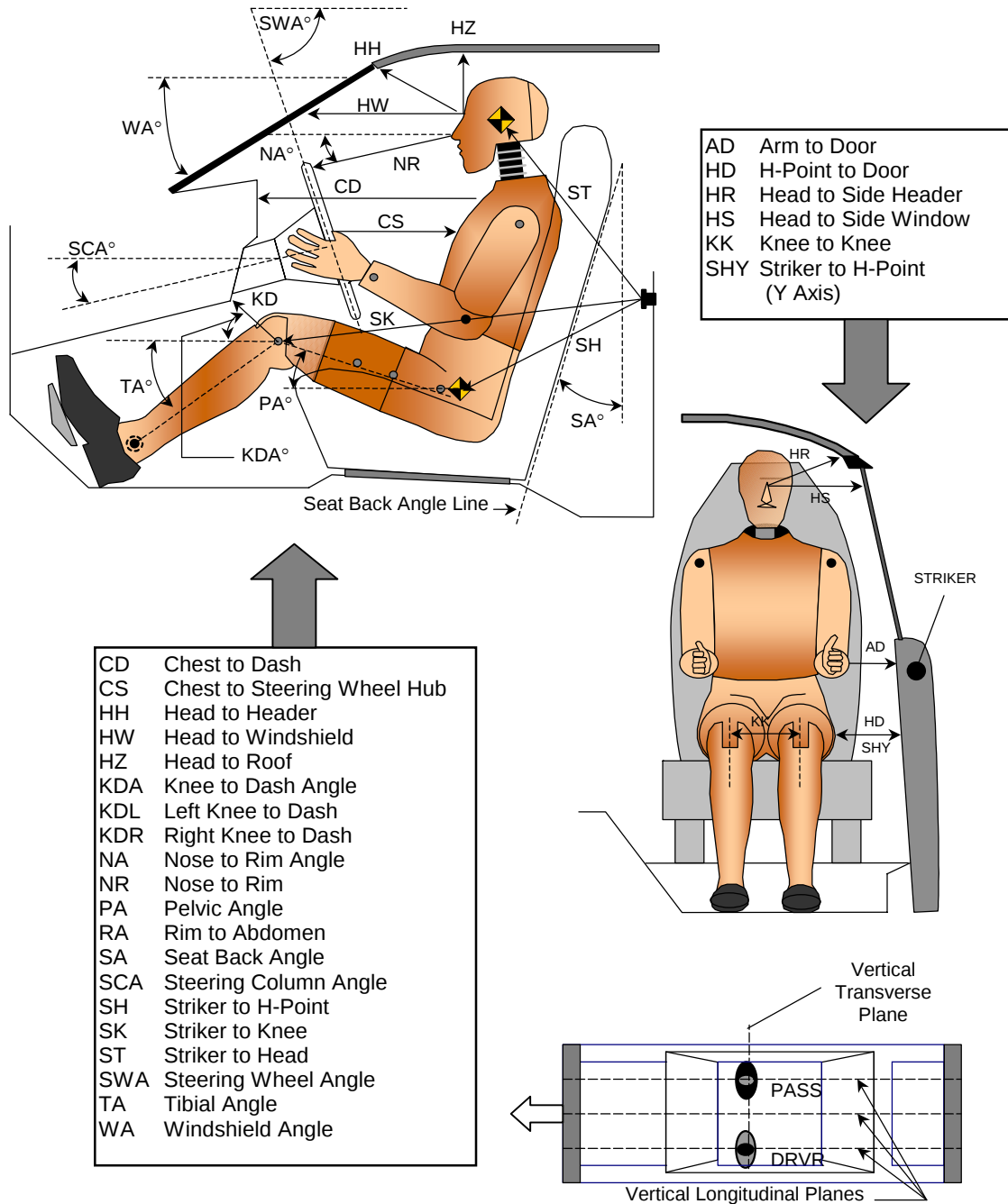
TEST DUMMY POSITION MEASUREMENTS

Code	Measurement Description	Driver		Passenger	
		Length (mm)	Angle (deg)	Length (mm)	Angle (deg)
WA	Windshield Angle		23.0		
SWA	Steering Wheel Angle		61.8		
SCA	Steering Column Angle		27.3		
SA	Seat Back Angle		7.4 @ Headrest		7.4 @ Headrest
HZ	Head to Roof (Z)	245	90.0	235	90.0
HH	Head to Header	365		375	
HW	Head to Windshield	710		705	
HR	Head to Side Header (Y)	280		290	
NR	Nose to Rim	400	9.0		
CD	Chest to Dash	525		590	
CS	Chest to Steering Hub	310			
RA	Rim to Abdomen	180			
KDL	Left Knee to Dash	175	29.3	125	
KDR	Right Knee to Dash	175		135	23.0
PA	Pelvic Angle		24.0		24.0
TA	Tibia Angle		49.0		54.0
KK	Knee to Knee (Y)	290		275	
SK	Striker to Knee	630	4.5	650	7.5
ST	Striker to Head	510	76.0	510	76.3
SH	Striker to H-Point	295	27.0	300	31.8
SHY	Striker to H-Point (Y)	275		270	
HS	Head to Side Window	355		355	
HD	H-Point to Door (Y)	135		125	
AD	Arm to Door (Y)	50		35	

DATA SHEET NO. 5...(CONTINUED) **DUMMY POSITIONING IN VEHICLE**

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07

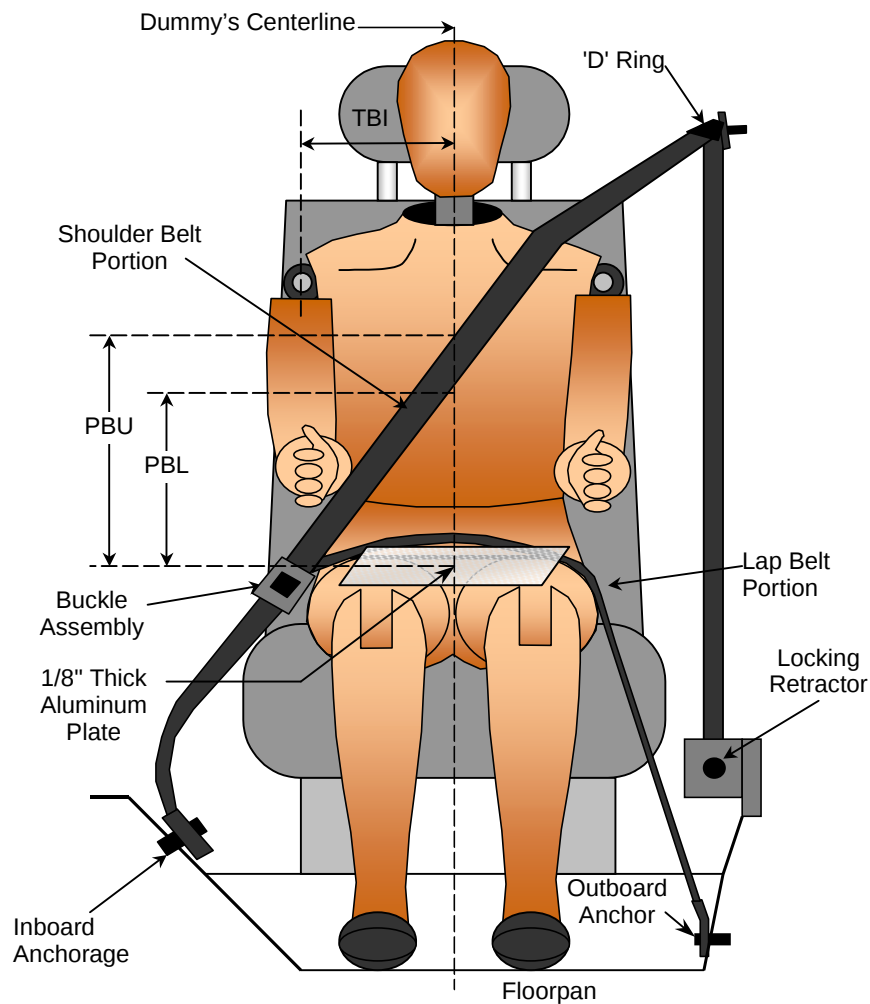


DUMMY MEASUREMENTS FOR FRONT SEAT OCCUPANTS

DATA SHEET NO. 6 **SEAT BELT POSITIONING DATA**

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07



SEAT BELT POSITIONING MEASUREMENTS

Measured Parameter	Units	Driver	Passenger
TBI - Dummy C/L to Lap/Shoulder Belt Intersect	mm	190	185
PBU - Top Surface of reference to belt upper edge	mm	330	310
PBL - Top Surface of reference to belt lower edge	mm	250	230
Lap Belt Tension	Newtons	10	10
Shoulder Belt Tension	N/A	Retractor	Retractor

DATA SHEET NO. 7 **VEHICLE ACCELEROMETER LOCATION**

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV

Test Date: 1/18/07

Test Program: 2007 NHTSA 35mph NCAP

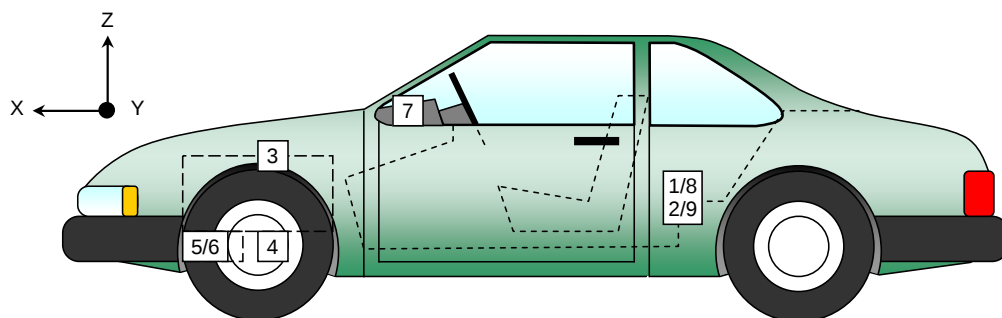
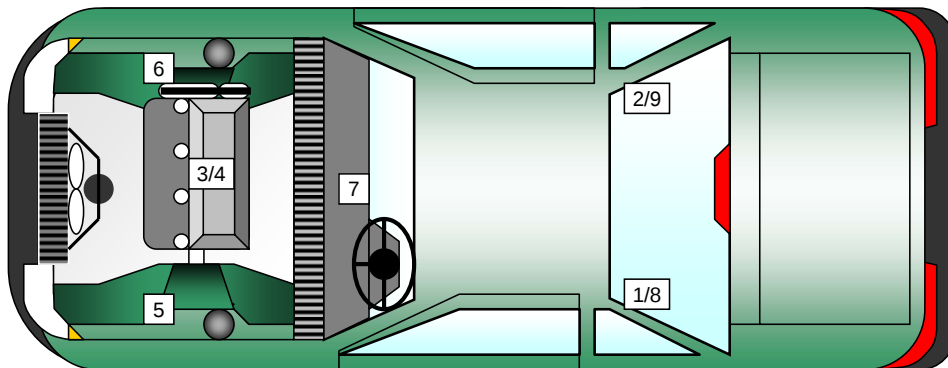
NHTSA No.: M70201

VEHICLE ACCELEROMETER PRE-TEST LOCATIONS

No.	Accelerometer Location	Measurements (mm)		
		X	Y	Z
1	Left Rear X-Member	1700	-749	493
2	Right Rear X-Member	1700	749	493
3	Engine Top	4205	230	970
4	Engine Bottom	3929	212	220
5	Left Brake Caliper	3936	-740	440
6	Right Brake Caliper	3936	740	440
7	Instrument Panel			
8	Left Rear X-Member (Z-Axis)	1700	-749	493
9	Right Rear X-Member (Z-Axis)	1700	749	493

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

1.) Instrument Panel no longer used by NHTSA



DATA SHEET NO. 8
SEAT BELT ASSESSMENT TEST DATA

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07

SEAT BELT POSITIONING MEASUREMENTS

Measurement Description	Units	Driver	Passenger
Retractor Reel to "D" ring	mm	760	760
Shoulder Belt length as measured on ATD	mm	880	900
Lap Belt length as measured on ATD	mm	640	690
Remainder of belt on reel	mm	675	800
Total belt length for continuous webbing systems	mm	2955	3150

SHOULDER BELT SPOOL-OFF DATA

Measurement Description	Units	Driver	Passenger
As determined mechanically	mm	330	330
As determined electronically	mm	400	233.4*

*Channel failed at 68.0 msec

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: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07

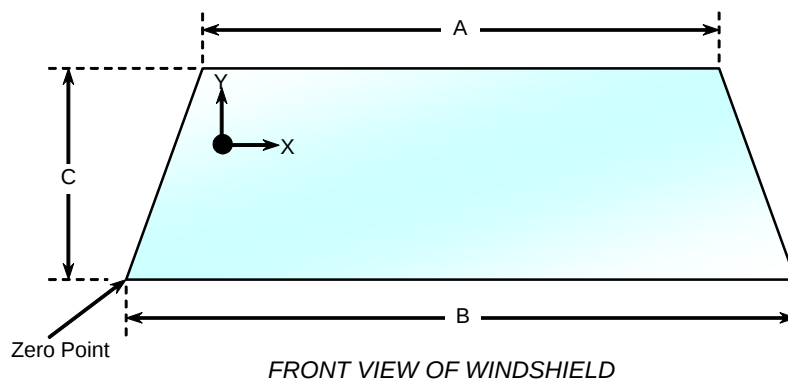
Windshield Mounting Details: Windshield glass is secured to the vehicle frame with a rubber type adhesive. No molding covers the windshield periphery at any point.

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: 21.1 °C

WINDSHIELD PERIPHERY MEASUREMENTS

Measurement	Pre-Test(mm)	Post-Test(mm)	% of Retention
Left Side	2405	2405	100
Right Side	2405	2405	100
Total	4810	4810	100



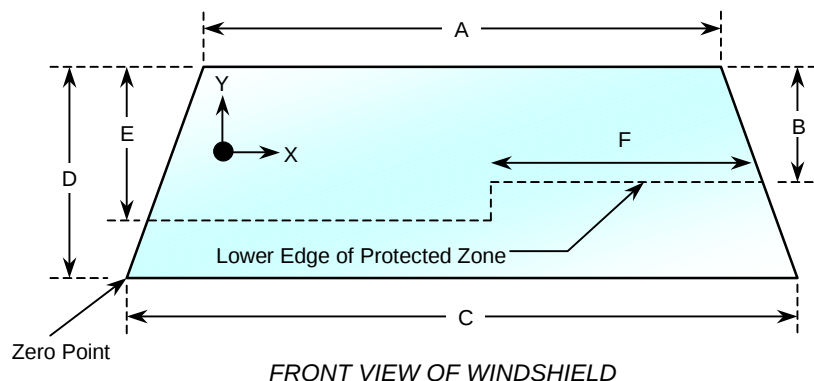
WINDSHIELD DIMENSIONS

Item	Units	Segment Length	Molding Width
A	mm	1290	10
B	mm	1600	22
C-Left	mm	960	10
C-Right	mm	960	10

DATA SHEET NO. 10
WINDSHIELD ZONE INTRUSION FMVSS 219 DATA (PARTIAL)

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07



**WINDSHIELD AND
PROTECTED ZONE**

Item	Units	Value
A	mm	1290
B	mm	615
C	mm	1600
D	mm	960
E	mm	632
F	mm	562

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: 2007 Ford Edge SE AWD 5-Door MPV

NHTSA No.: M70201

Test Program: 2007 NHTSA 35mph NCAP

Test Date: 1/18/07

Test Time: 11:53 AM

Temperature: 8.9 ° C

STODDARD SOLVENT SPILLAGE MEASUREMENTS

A. From impact until vehicle motion ceases: 0.0 oz.
(Maximum Allowable = 1 ounce)

B. For the 5 minute period after motion ceases: 0.0 oz.
(Maximum Allowable = 5 ounces)

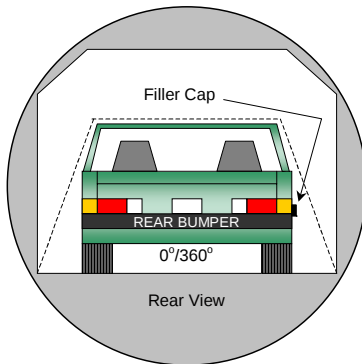
C. For the following 25 minutes: 0.0 oz.
(Maximum Allowable = 1 oz./minute)

D. Spillage Location Details: No leakage occurred

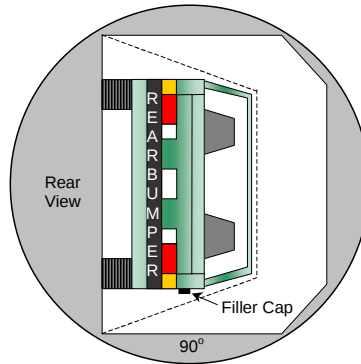
DATA SHEET NO. 12
FMVSS 301 STATIC ROLLOVER DATA

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
Test Program: 2007 NHTSA 35mph NCAP

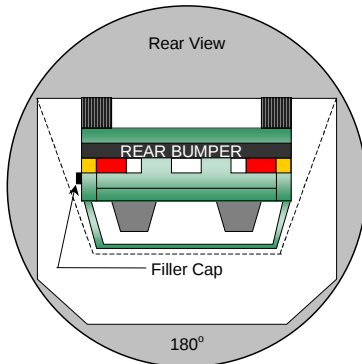
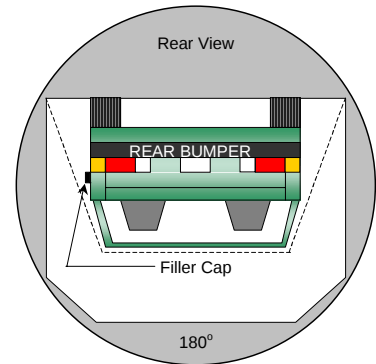
NHTSA No.: M70201
Test Date: 1/18/07



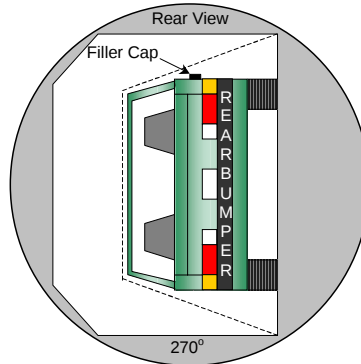
0° to 90°



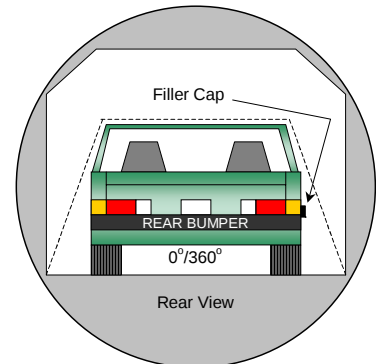
90° to 180°



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: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07

SOLVENT COLLECTION TIME TABLE IN SECONDS

Test Phase	Rotation Time	Hold Time	Total Time
0° to 90°	83	300	383
90° to 180°	84	300	384
180° to 270°	84	300	384
270° to 360°	84	300	384

FMVSS 301 SPILLAGE TABLE REQUIREMENT (oz.)

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: 2007 Ford Edge SE AWD 5-Door MPV
Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
Test Date: 1/18/07

VEHICLE MEASUREMENT TABLE

No.	Measurement Description	Units	Pre-Test	Post-Test	Diff.
1	Total length of vehicle at centerline	mm	4690	4258	-432
2	RSOV to front of engine	mm	4240	4037	-203
3	RSOV to firewall centerline	mm	3775	3748	-27
4	RSOV to leading edge of right door	mm	3297	3289	-8
5	RSOV to leading edge of left door	mm	3290	3291	1
6	RSOV to lower leading edge of right door	mm	3235	3222	-13
7	RSOV to lower leading edge of left door	mm	3235	3226	-9
8	RSOV to upper trailing edge of right door	mm	2153	2145	-8
9	RSOV to upper trailing edge of left door	mm	2150	2153	3
10	RSOV to lower trailing edge of right door	mm	2176	2167	-9
11	RSOV to lower trailing edge of left door	mm	2175	2165	-10
12	RSOV to bottom of right 'A' pillar	mm	3213	3190	-23
13	RSOV to bottom of left 'A' pillar	mm	3207	3197	-10
14	RSOV to firewall on right side	mm	3836	3585	-251
15	RSOV to firewall on left side	mm	3830	3630	-200
16	RSOV to steering column	mm	2825	2882	57
17	Center of steering column to left 'A' pillar	mm	425	404	-21
18	Center of steering column to headlining	mm	445	460	15
19	RSOV to right side of front bumper	mm	4505	4201	-304
20	RSOV to left side of front bumper	mm	4505	4191	-314
21	Length of engine block	mm	500	500	0
RD	RSOV to right side of dash panel	mm	3020	2998	-22
CD	RSOV to center of dash panel	mm	3004	2931	-73
LD	RSOV to left side of dash panel	mm	3010	3034	24

DATA SHEET NO. 13...(CONTINUED)
VEHICLE STRUCTURAL MEASUREMENTS

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07

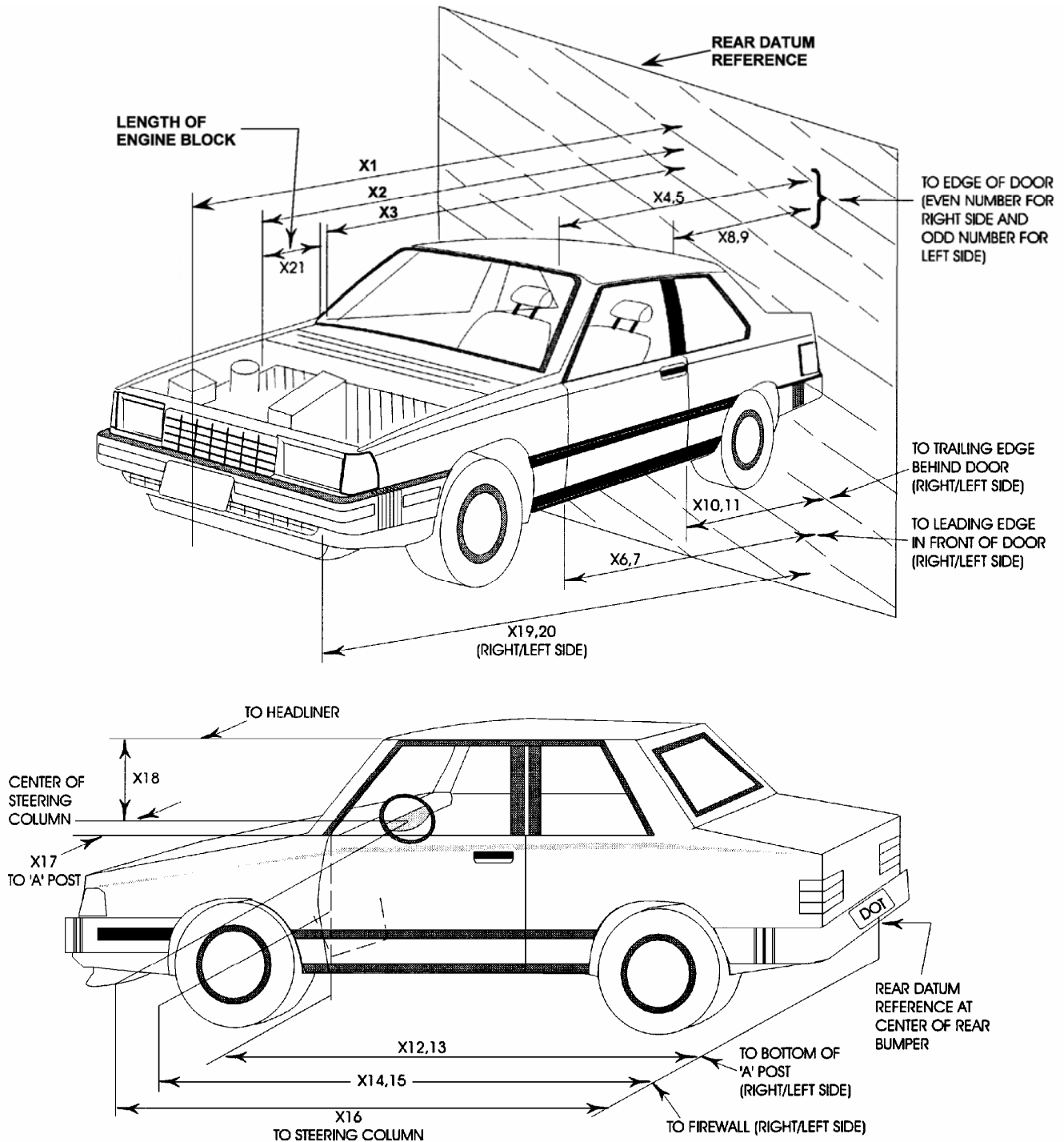
VEHICLE STRUCTURAL MEASUREMENT TABLE

No.	Measurement Description	Units	Pre-Test	Post-Test	Diff.
1	Total length	mm	4690	4258	-432
2	Total width	mm	1888	1881	-7
3	Bumper top height	mm	700	680	-20
4	Bumper bottom height	mm	198	273	75
5	Longitudinal member top height	mm	630	1026	396
6	Longitudinal member bottom height	mm	470	838	368
7	Distance between longitudinal members	mm	938	1227	289
8	Longitudinal member width	mm	100	100	0
9	Engine top height	mm	956	1018	62
10	Engine bottom height	mm	231	276	45
11	Engine and gear box width	mm	1050	1050	0
12	Front bumper to engine distance	mm	450	195	-255
13	Front shock absorber fixing width	mm	1019	1026	7
14	Bonnet leading edge height	mm	933	1005	72
15	Front shock absorber fixing width	mm	1270	1227	-43
16	Front bumper to front axle distance	mm	937	477	-460
17	Front axle to 'A' pillar distance	mm	554	458	-96
18	'A' pillar to 'B' pillar distance	mm	1070	1019	-51
19	'B' pillar to rear axle distance	mm	1225	1225	0
20	'B' pillar to 'C' pillar distance	mm	712	712	0
21	Roof sill bottom height	mm	1629	1524	-105
22	Roof sill top height	mm	1530	1500	-30
23	Floor sill bottom height	mm	415	411	-4
24	Floor sill top height	mm	244	265	21

DATA SHEET NO. 13...(CONTINUED)
VEHICLE MEASUREMENTS

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07



DATA SHEET NO. 14
CAMERA LOCATIONS

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
Test Date: 1/18/07

VEHICLE CAMERA MEASUREMENT TABLE

No.	Camera View	Location (mm)			Angle (deg.)	Film Plane to Head	Lens (mm)	Speed (fps)
		X	Y	Z				
1	Real Time Camera (Panning)	-16589	-7485	-1475	0	N/A	N/A	30
2	Overall Left Side	-2612	-7489	-1024	0	8175	20mm	1000
3	Closeup Left Side	-1387	-7279	-1247	0	8064	50mm	1000
4	Driver and Interior View	-8696	-12562	-4511	-17	15570	ZOOM	1000
5	Steering Column (Bottom)	-1631	-8234	-2682	-13	9453	35mm	1000
6	Steering Column (Top)	-1663	-8153	-3078	-13	9549	35mm	1000
7	Overall Right Side	-2612	3851	-1034	0	4180	20mm	1000
8	Closeup Right Side	-1350	6258	-1250	0	6447	50mm	1000
9	Passenger and Interior View	-5330	9365	-2407	-10	10211	ZOOM	1000
10	Right Side View	-2006	6967	-1463	-6	7134	ZOOM	1000
11	Windshield View	-589	0	-5556	-90	N/A	24mm	1000
12	Driver Front View	378	-286	-2438	-34	N/A	25mm	1000
13	Passenger Front View	375	413	-2439	-34	N/A	25mm	1000
14	Pit View of Engine	-756	0	1495	90	N/A	12mm	1000
15	Pit View of Fuel Tank	-3398	0	1495	90	N/A	8mm	1000
16	Driver Side O.B.	-2481	314	-1221	-7	N/A	12mm	1000
17	Passenger Side O.B.	-2481	-314	-1221	-7	N/A	12mm	1000
18	Real Time Driver	-2458	-7598	1301	-1	N/A	N/A	30
19	Real Time Passenger	-2985	3981	-1284	-1	N/A	N/A	30

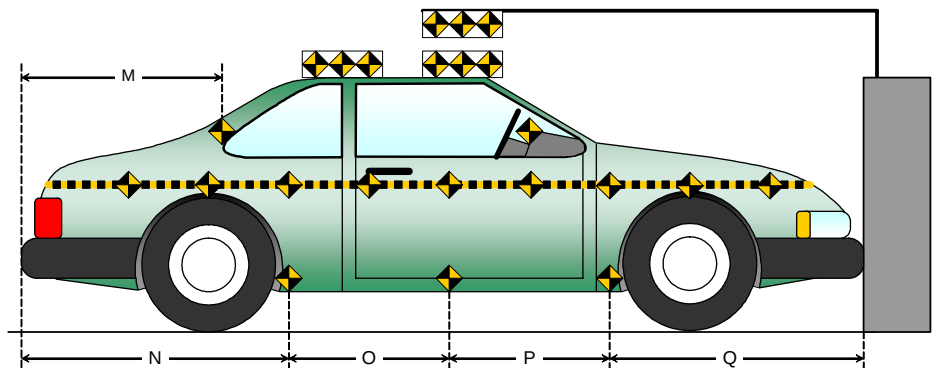
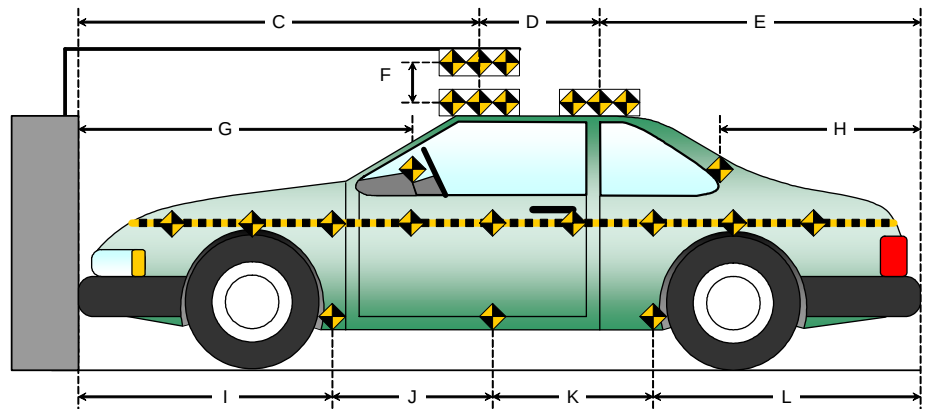
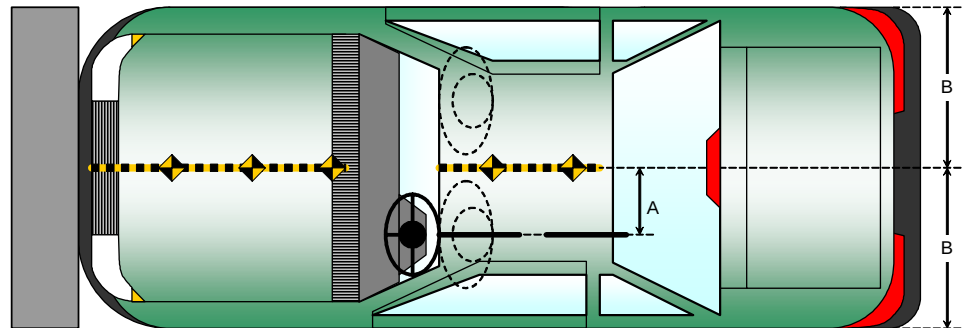
All measurements are made relative to the point of impact.

DATA SHEET NO. 15
PHOTOGRAPHIC REFERENCE TARGET LOCATIONS

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07

All Dimensions in (mm)	
Item	Value
A	380
B	944
C	2460
D	615
E	1905
F	155
G	1681
H	1270
I	1444
J	897
K	897
L	1466
M	1270
N	1466
O	897
P	897
Q	1444



DATA SHEET NO. 16
VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

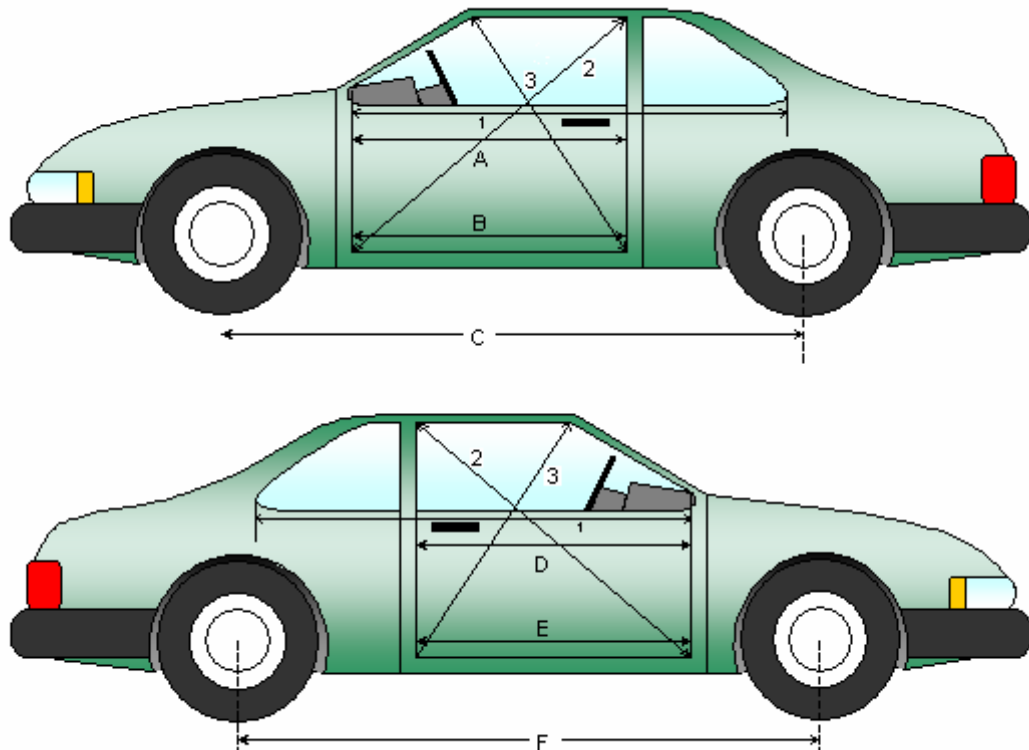
NHTSA No.: M70201
 Test Date: 1/18/07

DOOR OPENING WIDTH TABLE

Item	Description	Units	Pre-Test	Post-Test	Diff.
1L	Left Side	mm	1037	1037	0
2L	Left Side (Diagonally)	mm	1558	1558	0
3L	Left Side (Diagonally)	mm	1177	1177	0
1R	Right Side	mm	1040	1040	0
2R	Right Side (Diagonally)	mm	1548	1548	0
3R	Right Side (Diagonally)	mm	1136	1136	0

WHEELBASE MEASUREMENT TABLE

Item	Description	Units	Pre-Test	Post-Test	Diff.
C	Left Side Wheel Base	mm	2830	2795	-35
F	Right Side Wheel Base	mm	2830	2800	-30



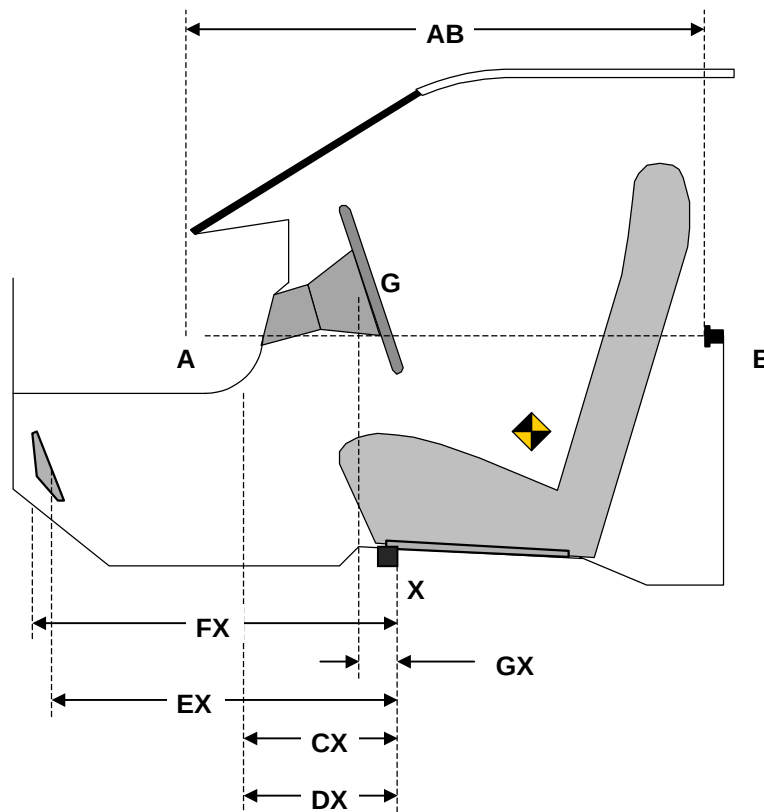
DATA SHEET NO. 16...(CONTINUED)
VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07

DRIVER COMPARTMENT INTRUSION TABLE

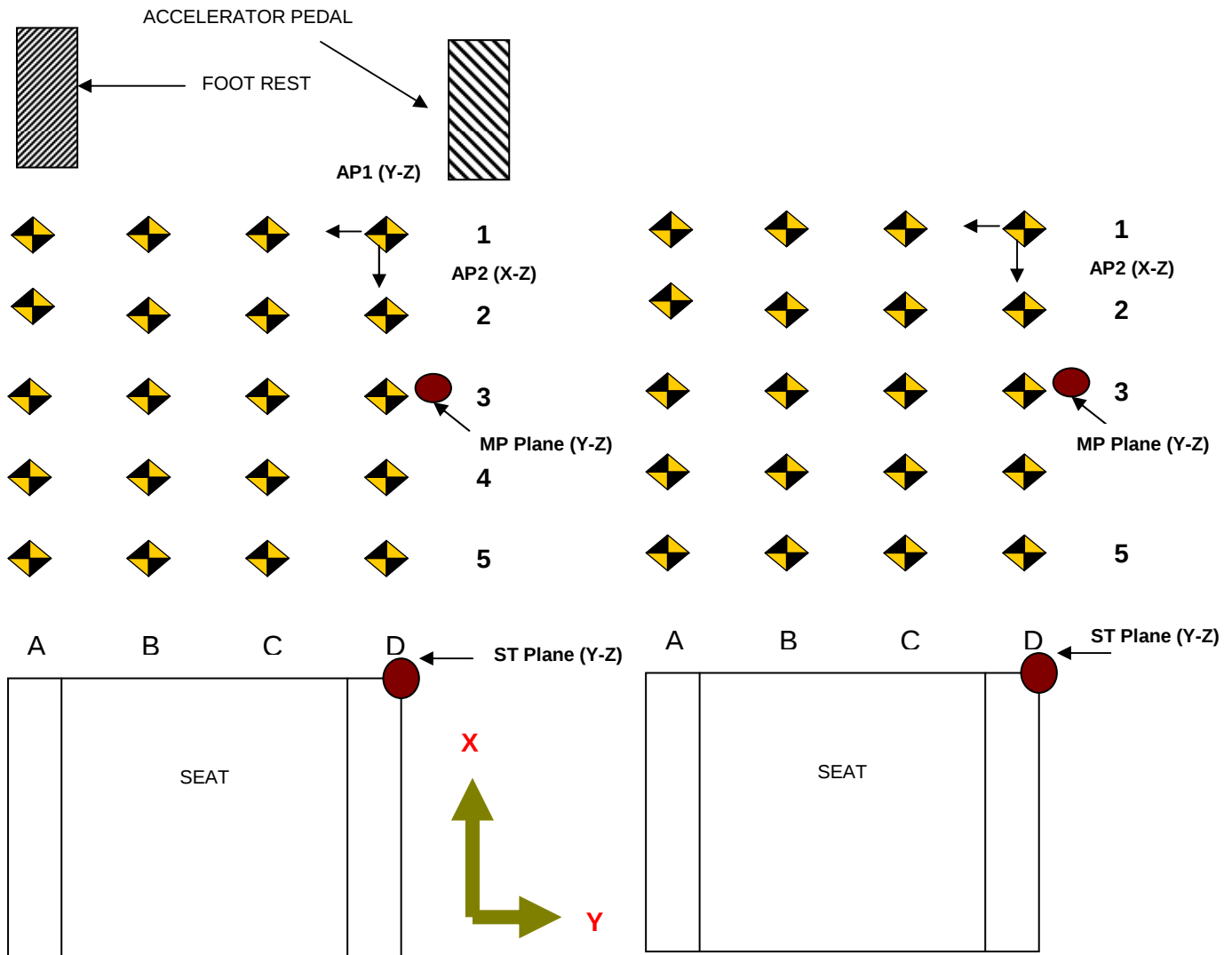
Item	Description	Units	Pre-Test	Post-Test	Diff.
AB	Door Opening (Inside window jam)	mm	1018	1020	2
CX	Left Knee Bolster to X	mm	235	242	7
DX	Right Knee Bolster to X	mm	251	298	47
EX	Brake Pedal to X	mm	525	450	-75
FX	Foot Rest to X	mm	496	545	49
GX	Center of Steering Wheel Hub to X	mm	90	110	20



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

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07



- 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: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07

All measurements in mm

DRIVER FLOOR PAN X-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	596	643	650	455	600	627	620	558	4	-16	-30	103
2	522	546	557	316	515	525	524	499	-7	-21	-33	183
3	428	432	442	211	419	413	408	402	-9	-19	-34	191
4	323	329	337	107	314	308	302	309	-9	-21	-35	202
5	226	235	247	21	216	214	212	207	-10	-21	-35	186

DRIVER FLOOR PAN Y-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	20	124	210	461	103	202	286	436	83	78	76	-25
2	23	121	222	451	82	184	289	424	59	63	67	-27
3	34	132	240	461	83	183	289	430	49	51	49	-31
4	41	147	252	468	81	184	290	430	40	37	38	-38
5	50	158	260	454	75	185	301	422	25	27	41	-32

DRIVER FLOOR PAN Z-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	-103	-56	-51	-118	-102	-51	-44	-158	1	5	7	-40
2	-28	19	21	-97	-11	28	32	-26	17	9	11	71
3	24	23	27	-28	31	30	37	30	7	7	10	58
4	26	26	35	31	32	33	43	40	6	7	8	9
5	25	27	31	2	28	33	25	11	3	6	-6	9

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

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07

All measurements in mm

PASSENGER FLOOR PAN X-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	697	677	654	595	642	646	650	618	-55	-31	-4	23
2	626	601	571	542	572	566	566	569	-54	-35	-5	27
3	525	503	476	440	470	468	468	465	-55	-35	-8	25
4	429	406	381	350	368	370	369	369	-61	-36	-12	19
5	338	310	283	249	276	271	269	266	-62	-39	-14	17

PASSENGER FLOOR PAN Y-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	-181	-87	26	133	-370	-273	-157	-41	-189	-186	-183	-174
2	-198	-103	-1	142	-367	-271	-161	-18	-169	-168	-160	-160
3	-227	-133	-22	116	-371	-278	-164	-22	-144	-145	-142	-138
4	-249	-156	-49	88	-377	-280	-169	-28	-128	-124	-120	-116
5	-276	-180	-73	60	-382	-282	-171	-33	-106	-102	-98	-93

PASSENGER FLOOR PAN Z-AXIS

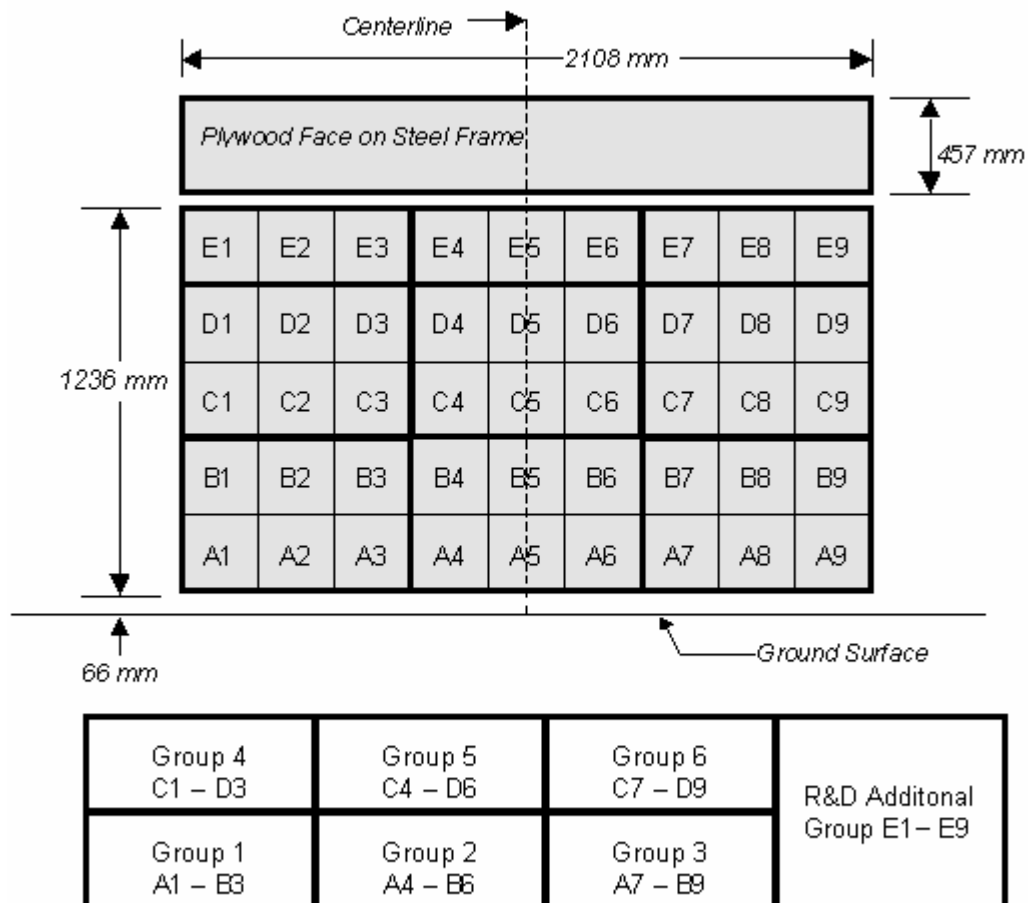
	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	-18	-22	-25	-60	-58	-64	-73	-101	-40	-42	-48	-41
2	43	43	43	37	8	6	1	-7	-35	-37	-42	-44
3	66	66	64	66	27	25	21	26	-39	-41	-43	-40
4	69	68	64	67	29	26	22	25	-40	-42	-42	-42
5	69	66	64	63	28	25	22	21	-41	-41	-42	-42

DATA SHEET NO. 17
FIXED BARRIER LOAD CELL LOCATIONS

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
 Test Date: 1/18/07

45 Load Cell Rigid Barrier (NTHSA Standard)
Load Cell Locations on Fixed Barrier



6 Groups of 6 Load Cells Each

DATA SHEET NO. 18
ACCIDENT INVESTIGATION DIVISION DATA

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
Test Date: 01/18/07

VEHICLE INFORMATION

VIN: 2FMDK46C77BA54520
Vehicle Size Category: 5-Door MPV

Wheel base (mm): 2830
Test Weight (kg): 2176

ACCELEROMETER DATA

Accelerometer Location: Left rear cross member
Cal. Procedure/Interval: 6 months / drop test
Integration Algorithm: NHTSA Standard
Impact Velocity (km/h): 55.94
Velocity Change (km/h): 63.5

Linearity: Good

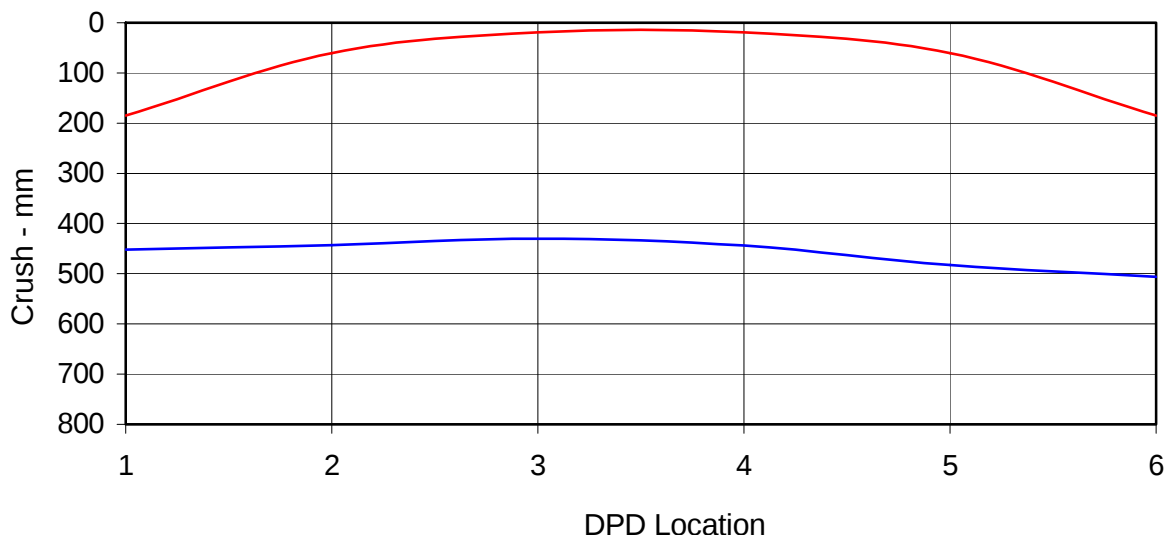
Time of Separation (msec): 63.3

CRUSH PROFILE

Collision Deformation Classification: 12FDEW6
Damage Region Length (mm): 1370

Midpoint of Damage: Vehicle Centerline
Impact Mode: Full Frontal

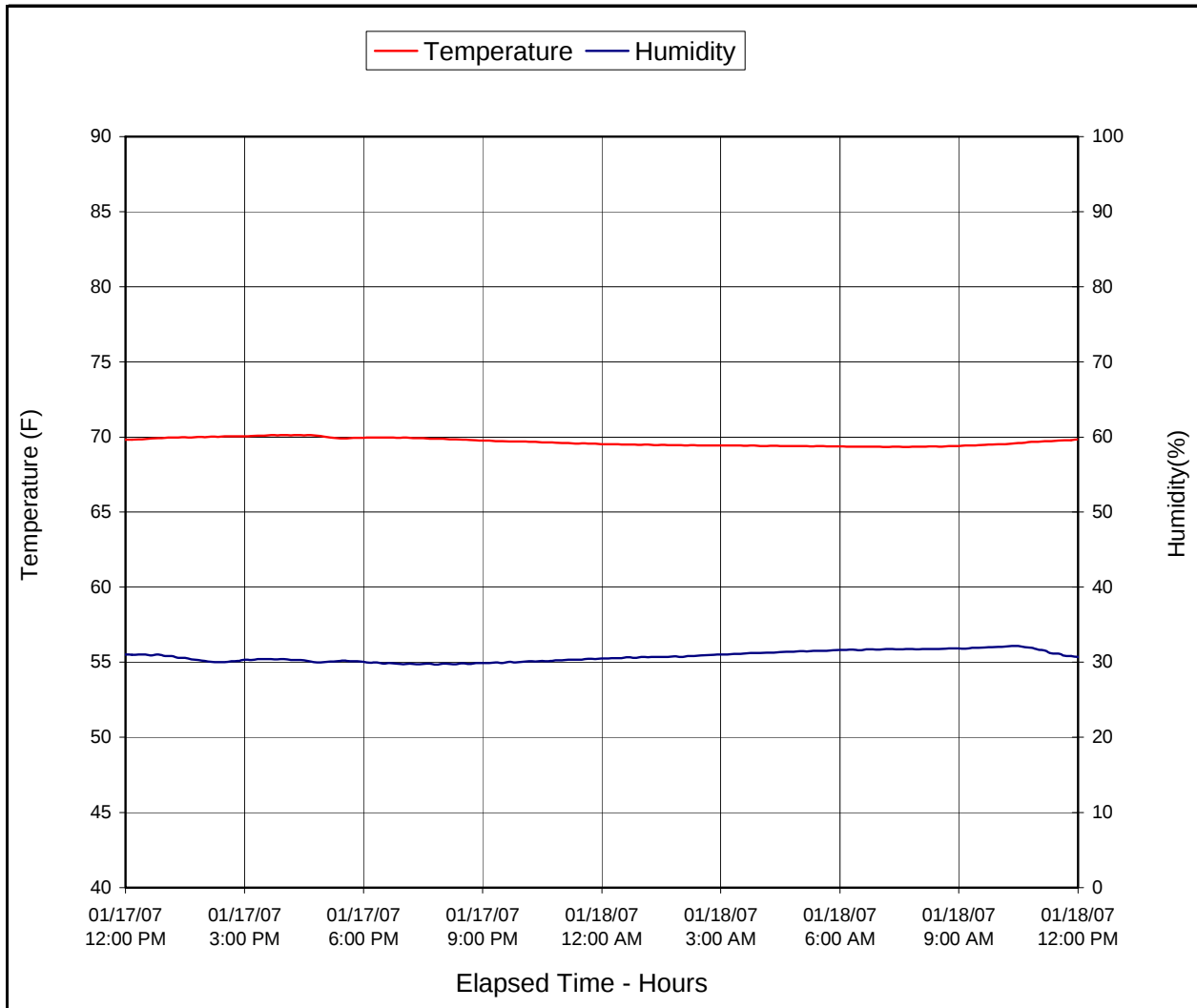
No.	Measurement Description	Units	Pre-Test	Post-Test	Difference
C1	Crush zone 1 at left side	mm	452	185	267
C2	Crush zone 2 on left side	mm	443	60	383
C3	Crush zone 3 on left side	mm	430	19	411
C4	Crush zone 4 on right side	mm	444	19	425
C5	Crush zone 5 on right side	mm	483	60	423
C6	Crush zone 6 at right side	mm	506	185	321



DATA SHEET NO. 19
DUMMY/VEHICLE TEMPERATURE STABILIZATION

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
Test Program: 2007 NHTSA 35mph NCAP

NHTSA No.: M70201
Test Date: 1/18/07



APPENDIX A
PHOTOGRAPHS

LIST OF PHOTOGRAPHS

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A-5	Left Rear $\frac{3}{4}$ View, As Received	A-5
A-6	Pre-Test Front View	A-6
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A-9	Post-Test Left Side View	A-9
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A-41	Post-Test Driver Side Floor Pan	A-41
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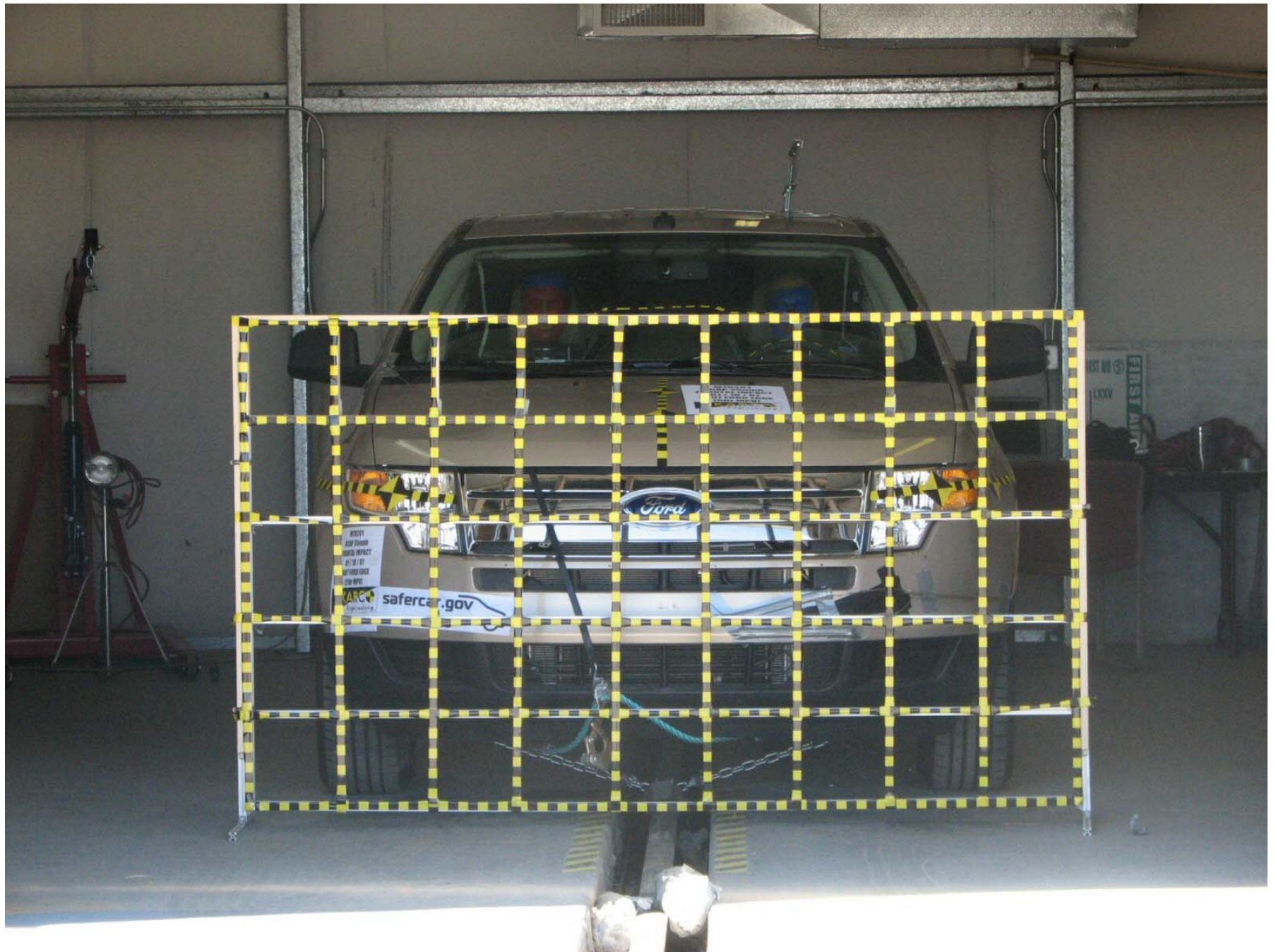


Figure A-1: Load Cell Location

MFD. BY FORD MOTOR CO.

DATE: 12/06

GVWR: 5490LB/ 2490KG

FRONT GAWR: 2900LB

REAR GAWR: 2610LB

1315KG

WITH 1184KG

WITH

P235/65R17

TIRES P235/65R17

TIRES

17x7.5J

RIMS 17x7.5J

RIMS

AT 240 kPa/ 35 PSI COLD AT 240 kPa/ 35 PSI COLD

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR
VEHICLE SAFETY AND THEFT PREVENTION STANDARDS IN
EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

VIN: 2FMDK46C77BA54520

TYPE: MPV

F0115
T0331



EXT PNT:

ND

RC: 71

DSO:

WB

INT TR

TP/PS

R

AXLE

TR

SPR

7Q11A

111

1C

1

3E

J

BBB

W05

UTC

5U5A-1520472-BA

Figure A-2: Manufacturer's Label



TIRE AND LOADING INFORMATION

SEATING CAPACITY TOTAL : 5 FRONT: 2 REAR: 3

The combined weight of occupants and cargo should never exceed : **412 kg or 909 lbs.**

▽5U5A-1532-AA (TLU)

TIRE	SIZE	COLD TIRE PRESSURE
FRONT	P235/65R17	240 KPA, 35 PSI
REAR	P235/65R17	240 KPA, 35 PSI
SPARE	T165/80D17	415 KPA, 60 PSI

**SEE OWNERS
MANUAL FOR
ADDITIONAL
INFORMATION**

2FMDK46C77BA54520



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

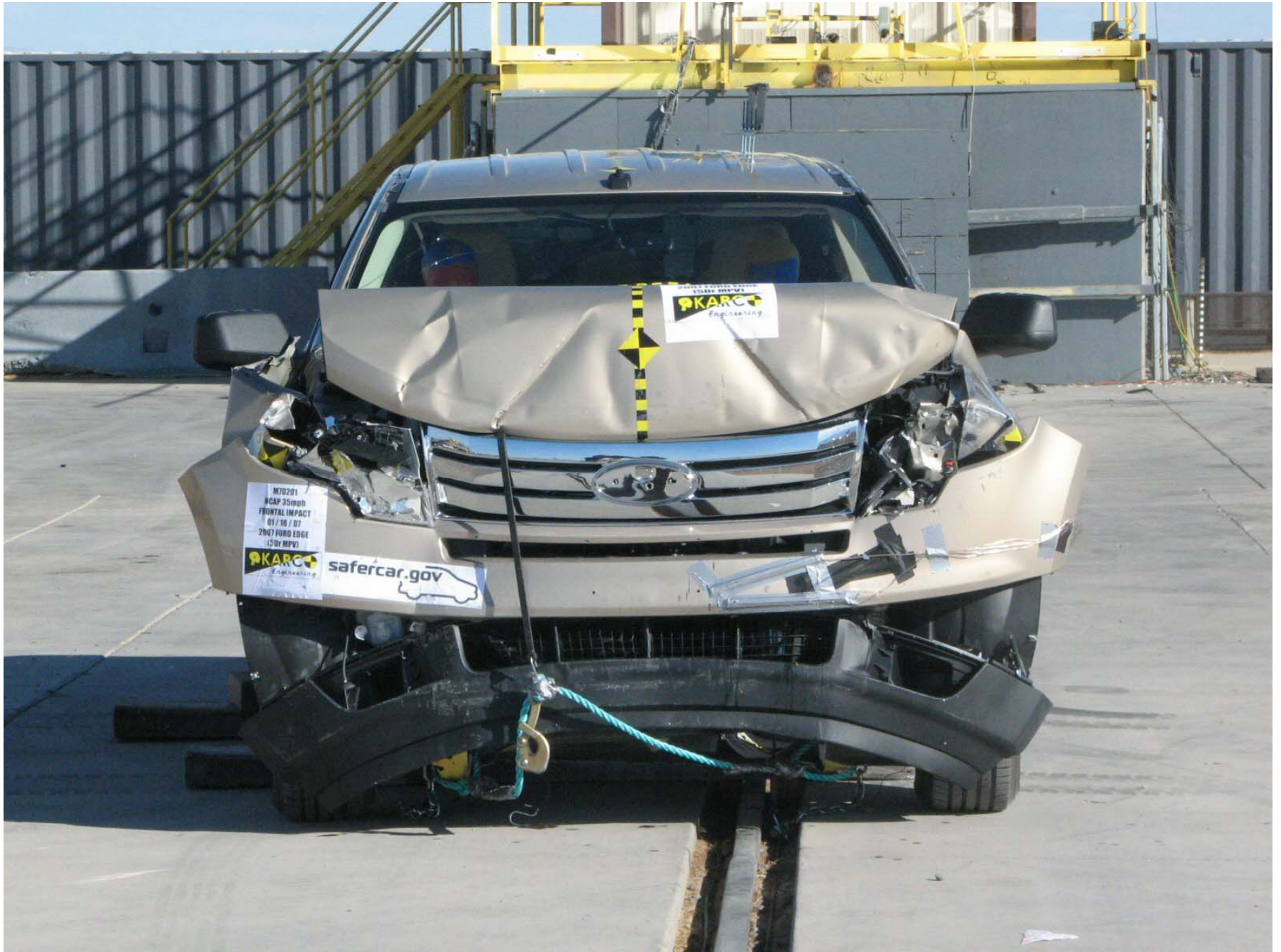


Figure A-7: Post-Test Front View (Vehicle Moved)



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 ¾ View

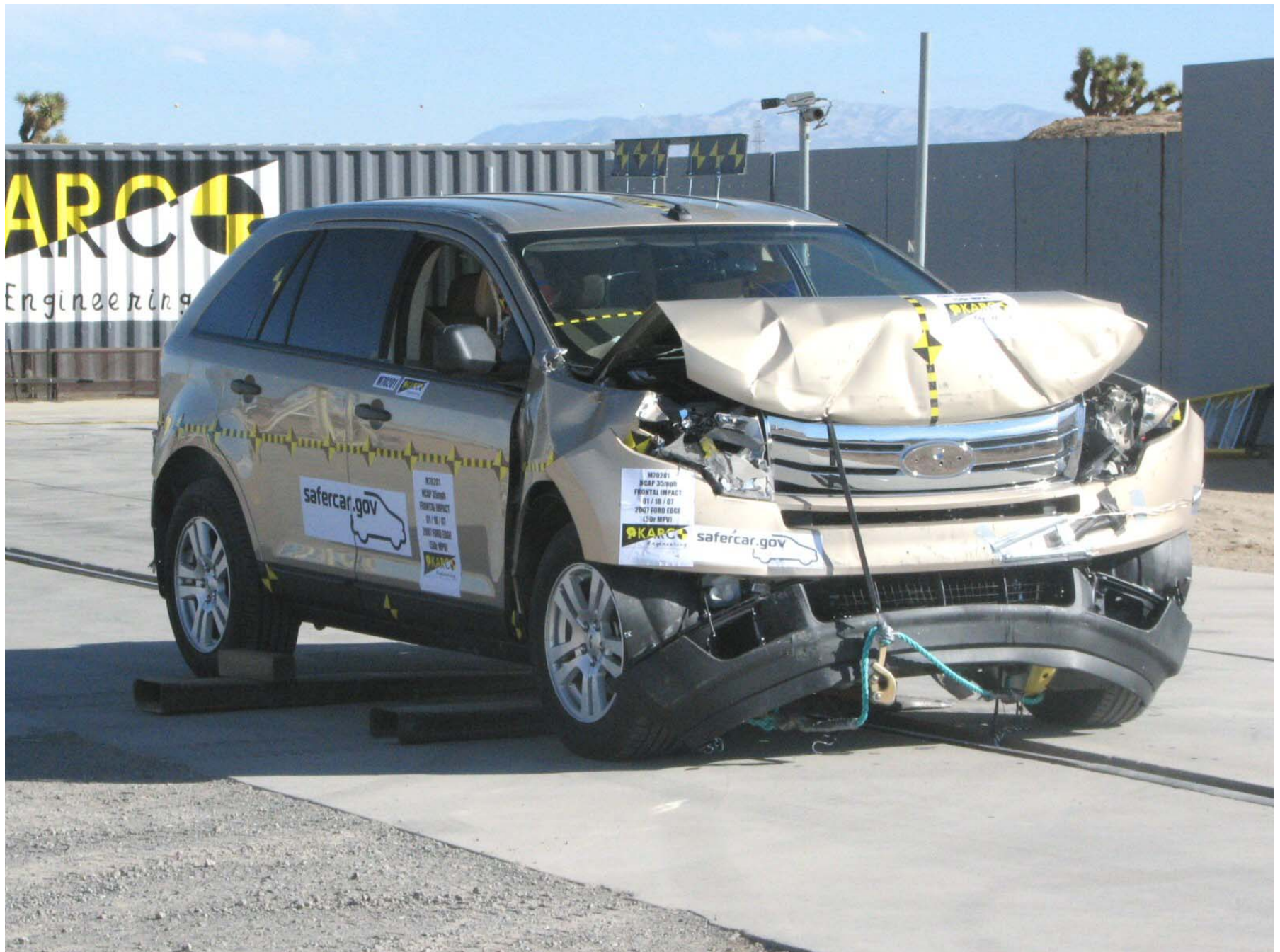


Figure A-13: Post-Test Right Front ¾ View (Vehicle Moved)



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 $\frac{3}{4}$ View of Doors After Impact



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

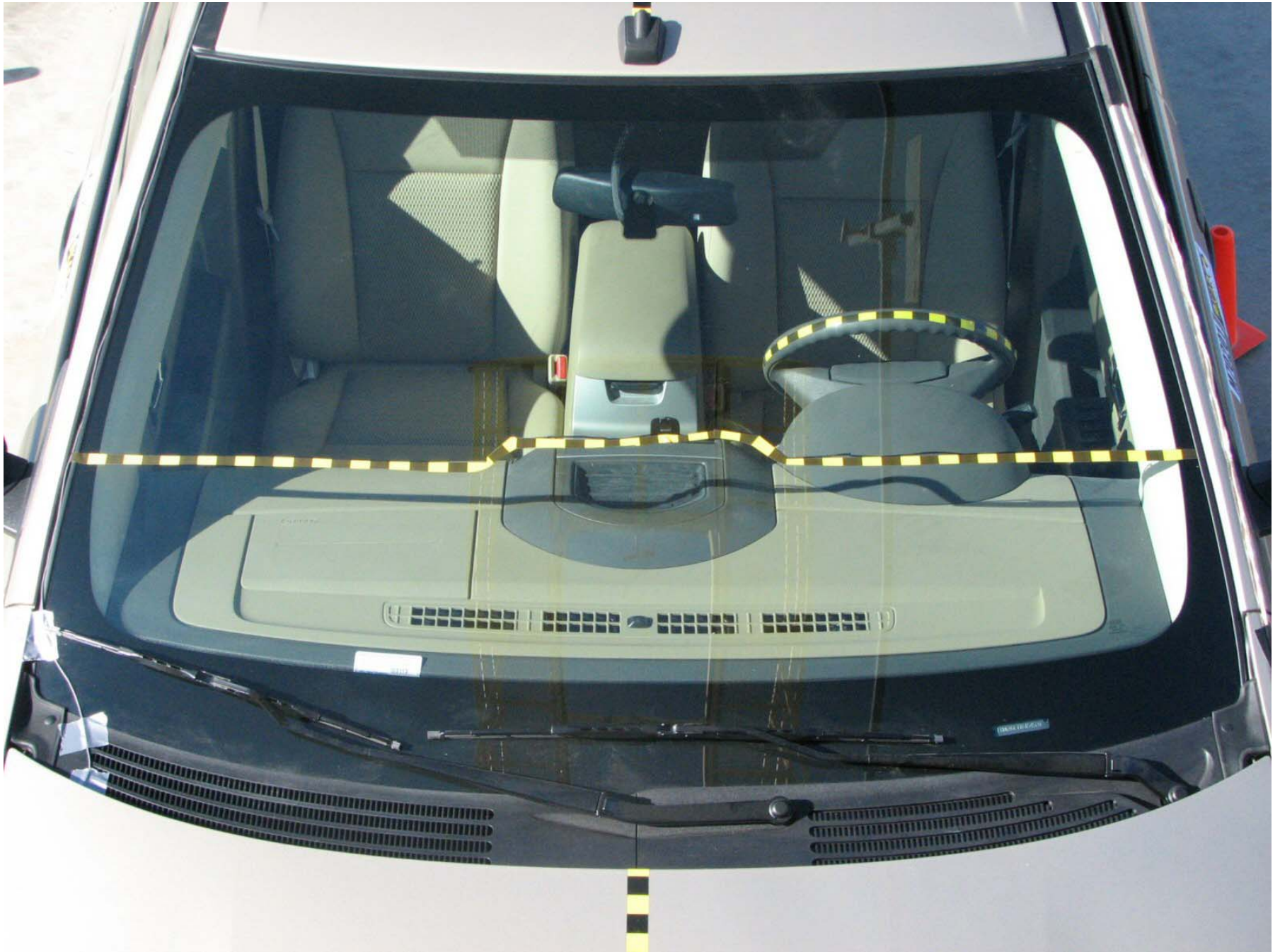


Figure A-18: Pre-Test Windshield



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

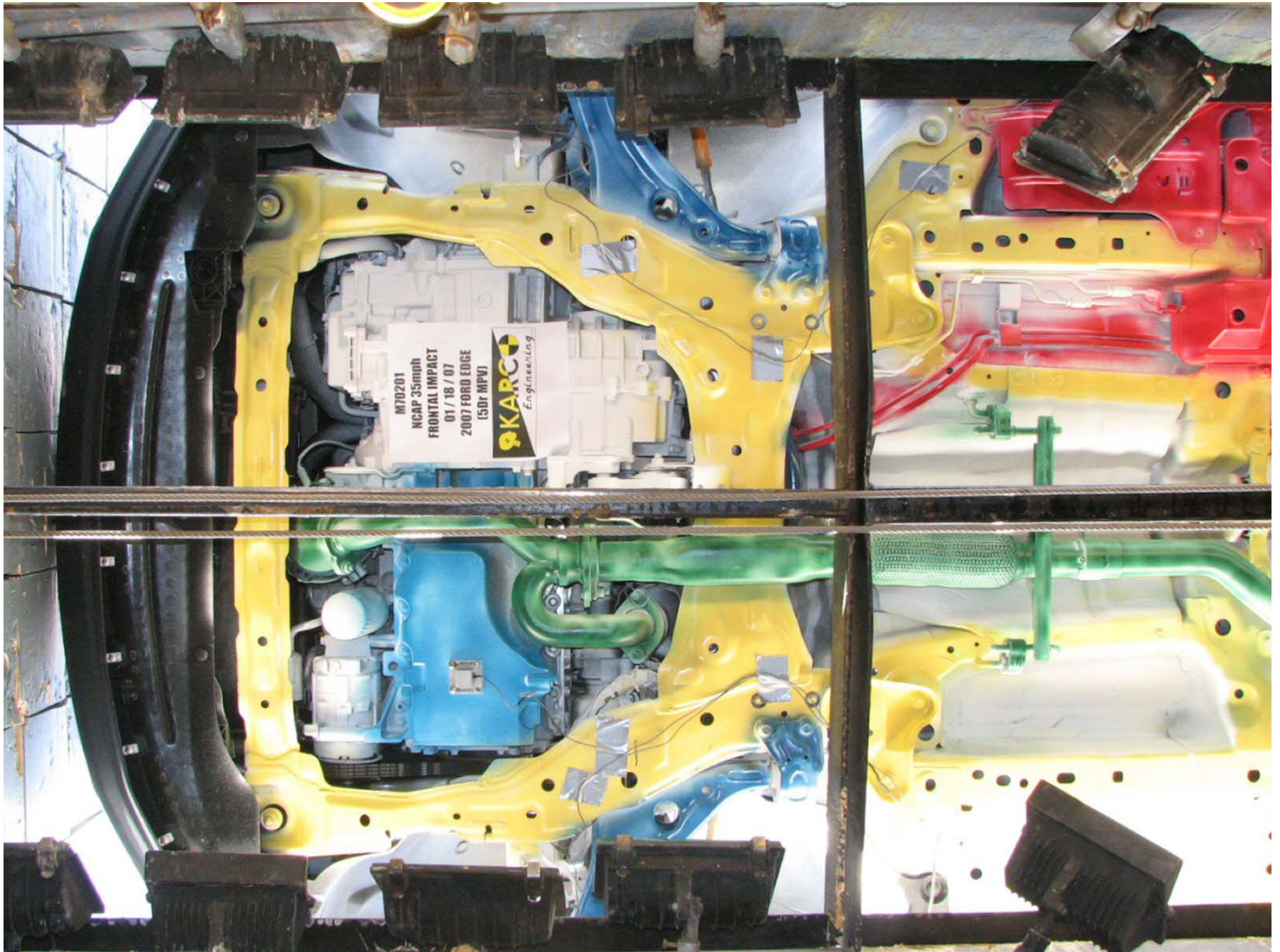


Figure A-24: Pre-Test Front Underbody

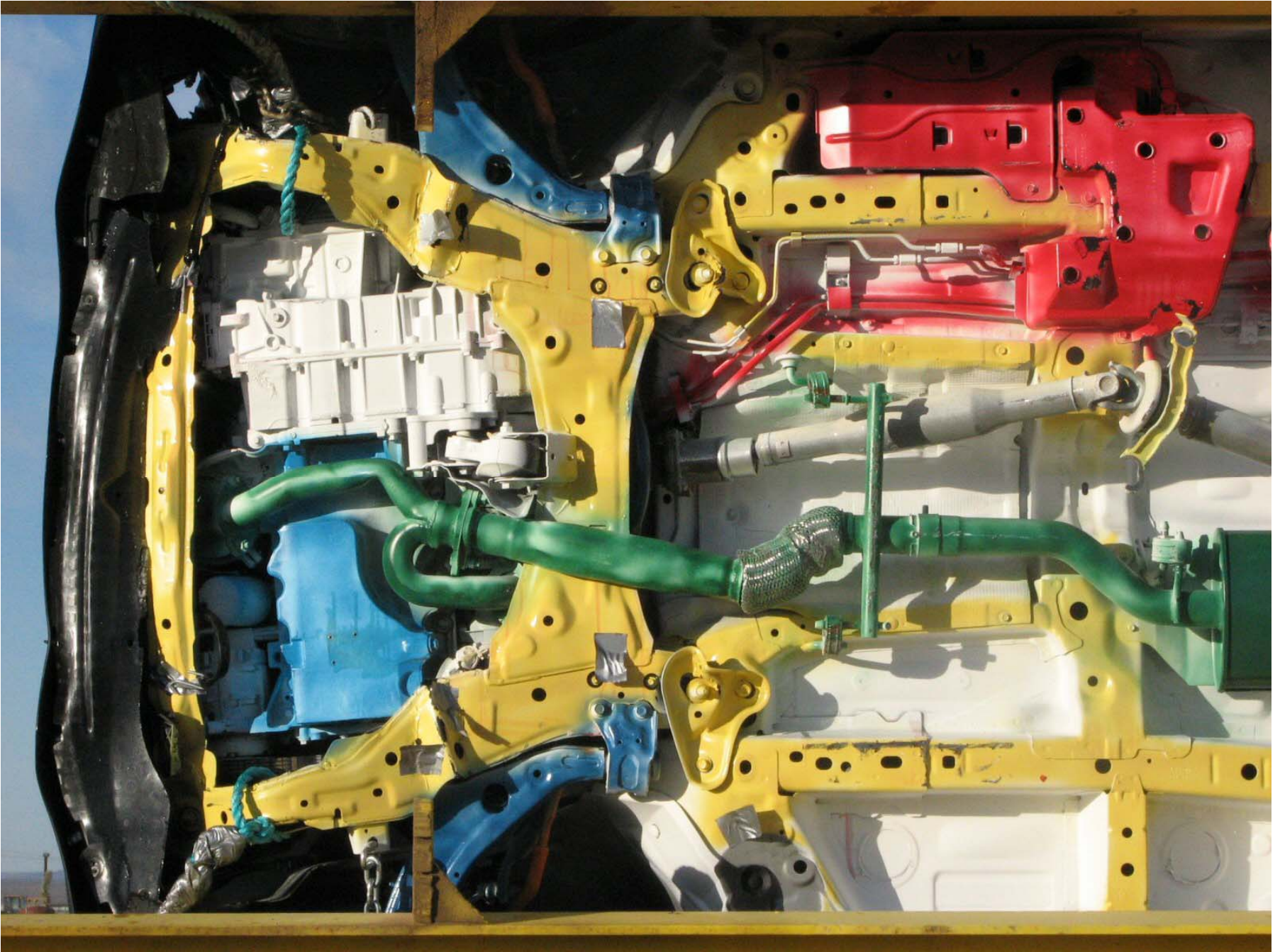


Figure A-25: Post-Test Front Underbody

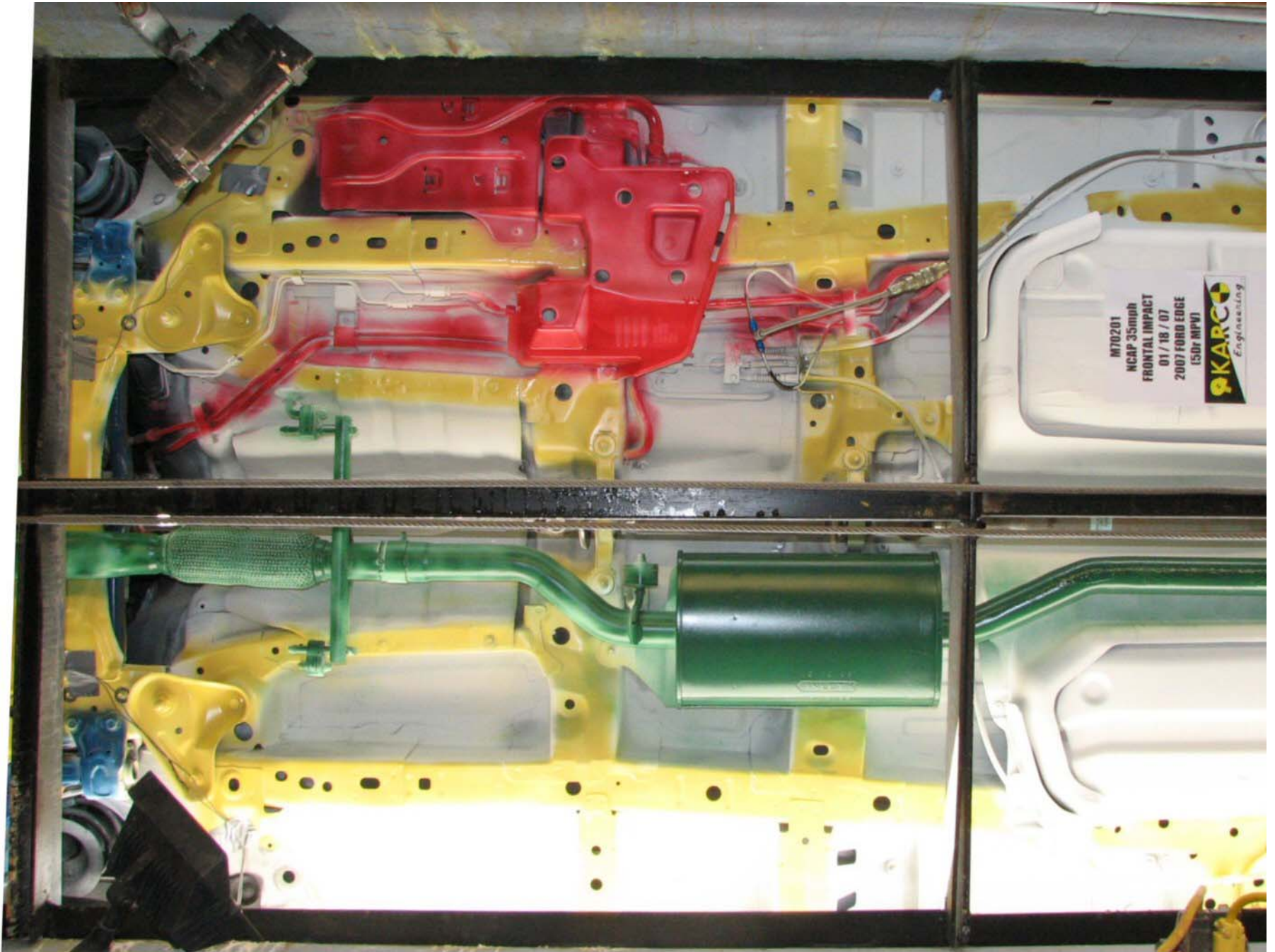


Figure A-26: Pre-Test Mid Underbody

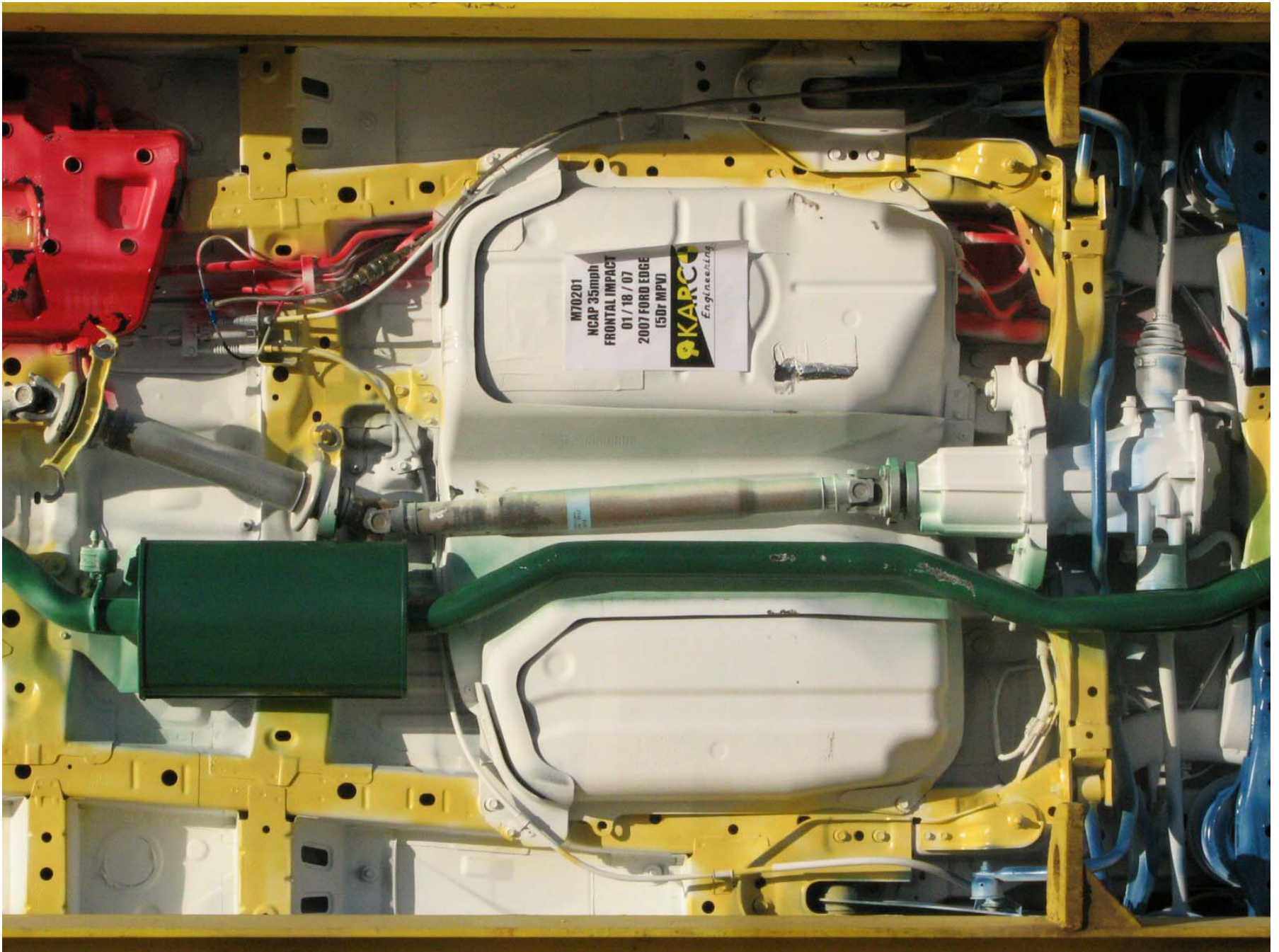


Figure A-27: Post-Test Mid Underbody

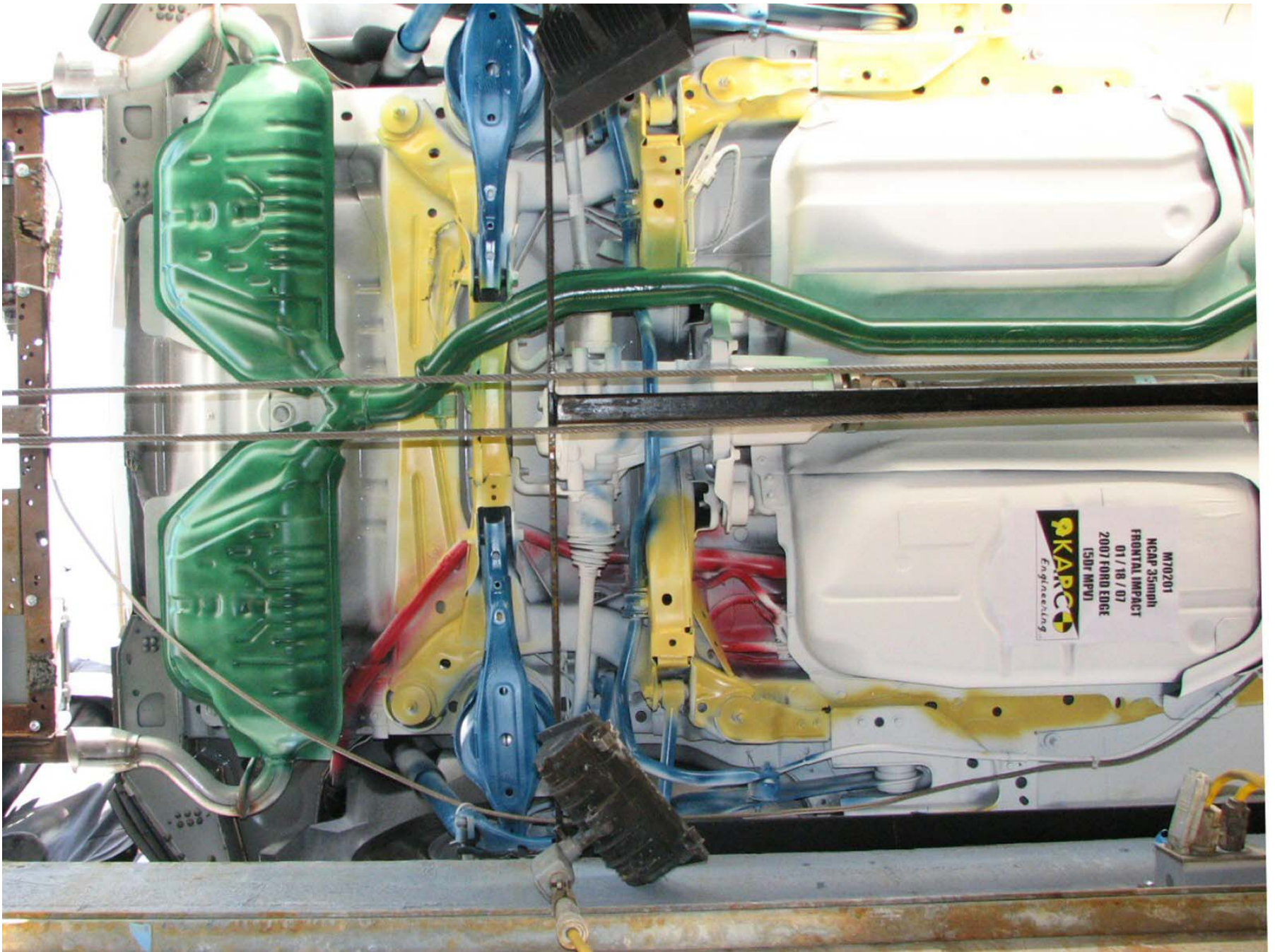


Figure A-28: Pre-Test Rear Underbody

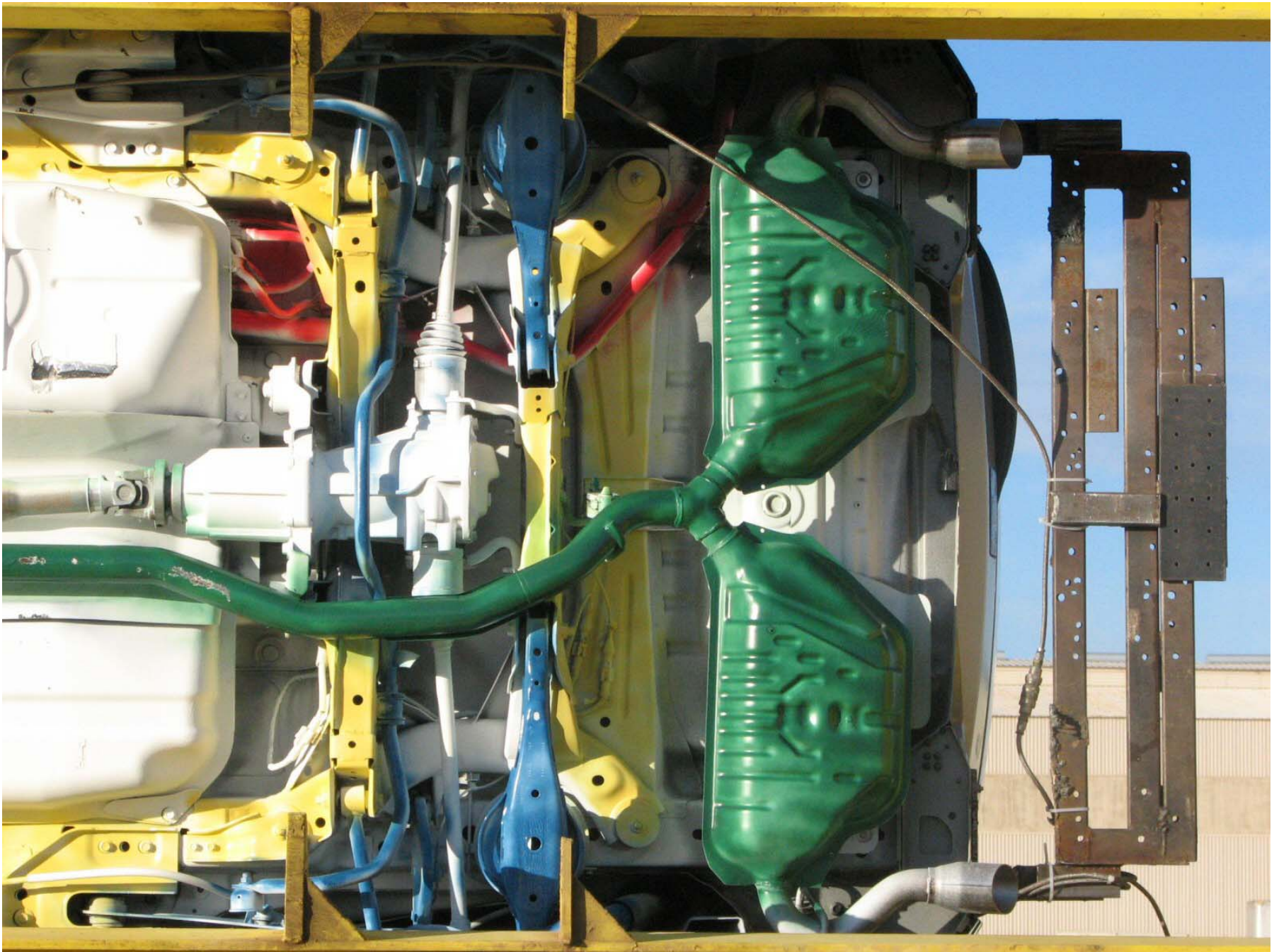


Figure A-29: Post-Test Rear Underbody



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)

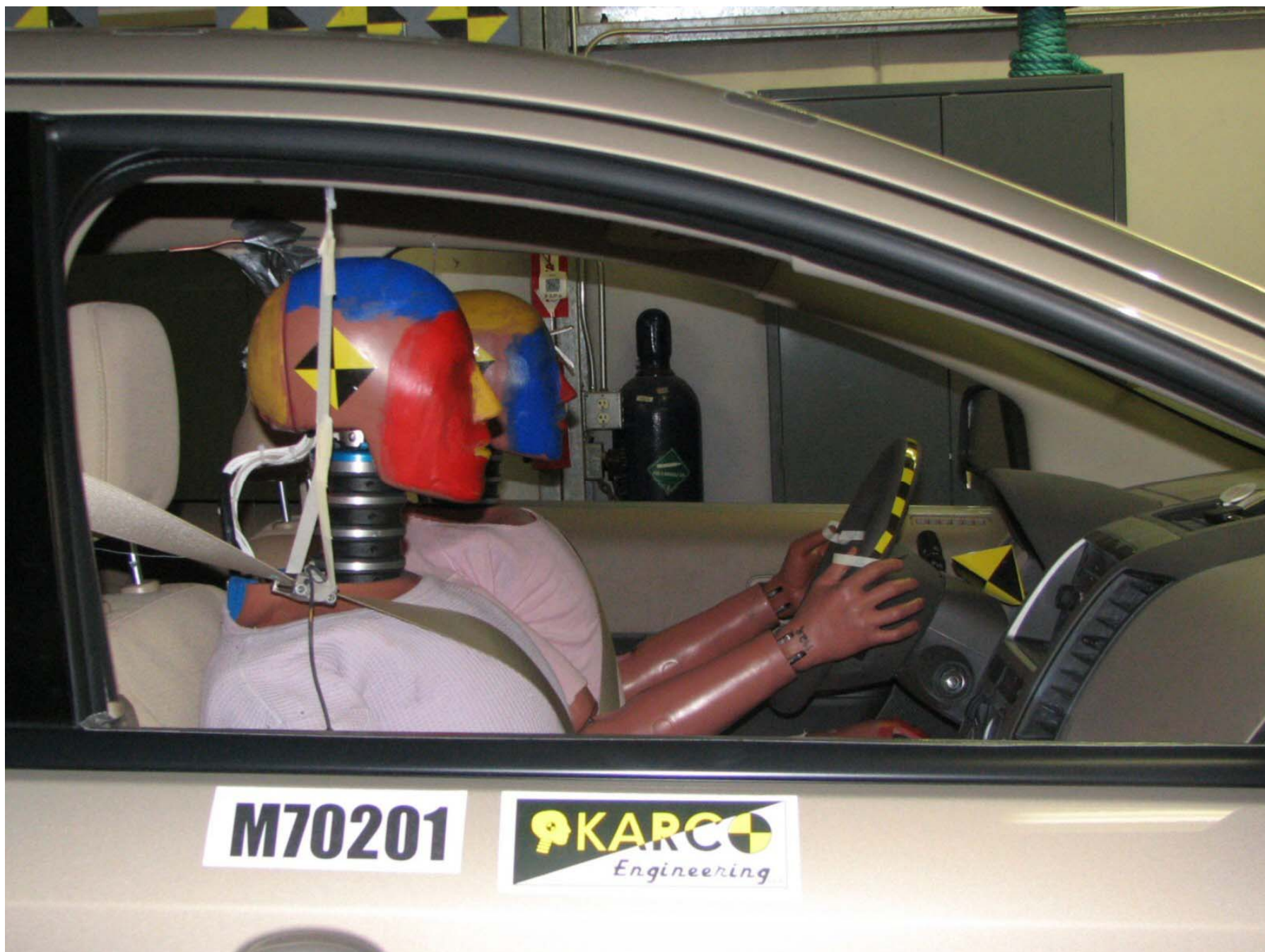


Figure A-46: Pre-Test Passenger Dummy (Through Window)



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°)

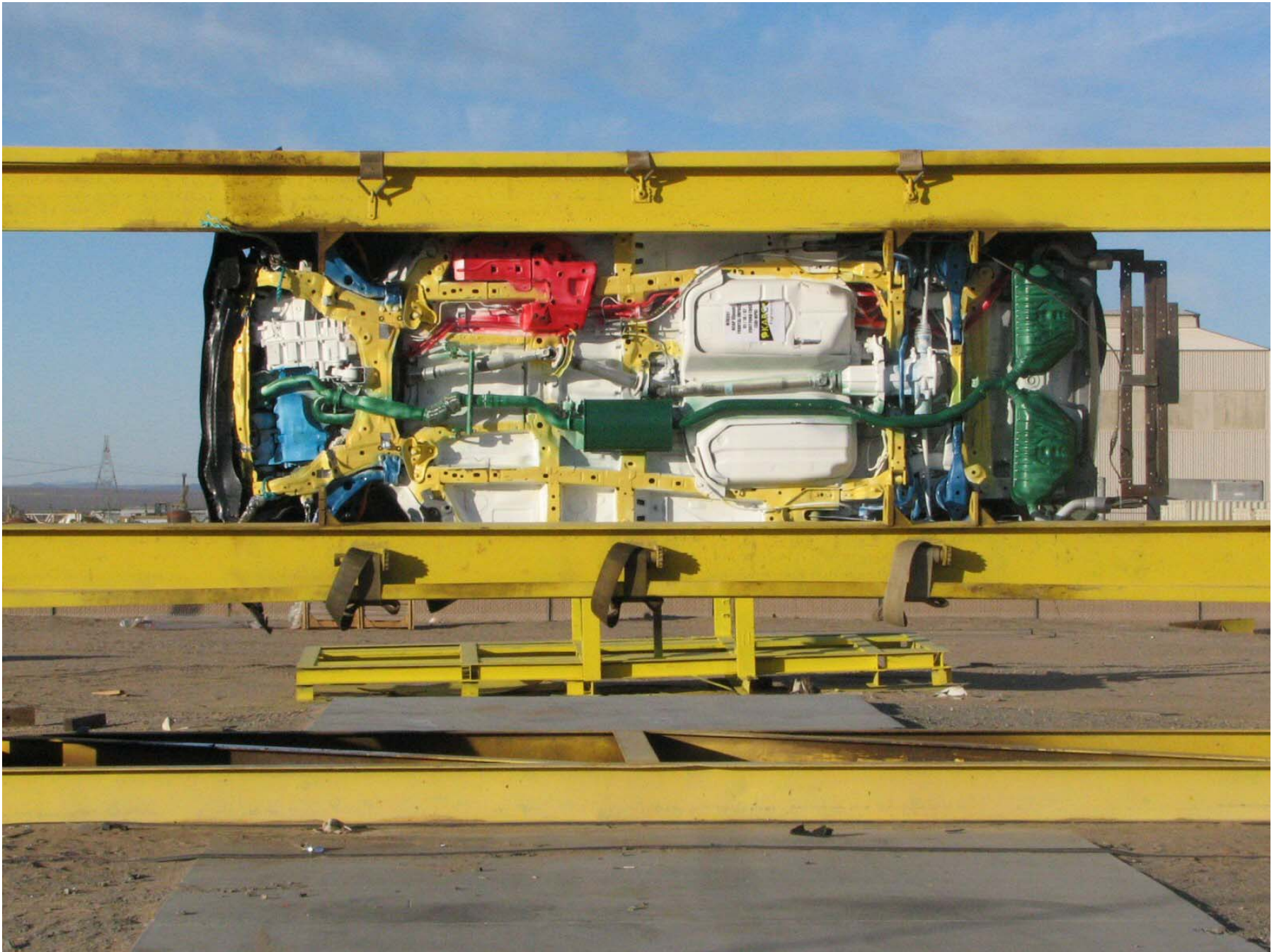


Figure A-61: Vehicle on Rollover Device (270°)



Figure A-62: Vehicle Impact

APPENDIX B
DATA PLOTS

LIST OF DATA PLOTS

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

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)

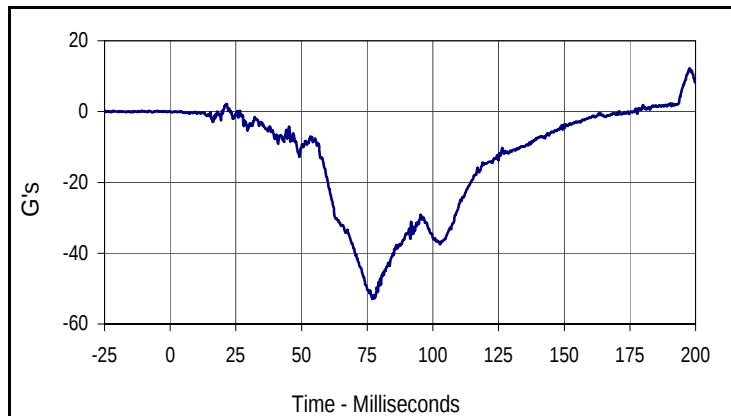
Passenger Chest Redundant Y
Passenger Chest Redundant Z
Passenger Chest Resultant Redundant
Passenger Chest Redundant X Velocity
Passenger Chest Redundant X Displacement
Passenger Chest Displacement
Passenger Pelvis X
Passenger Pelvis Y
Passenger Pelvis Z
Passenger Pelvis Resultant
Passenger Pelvis X 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)

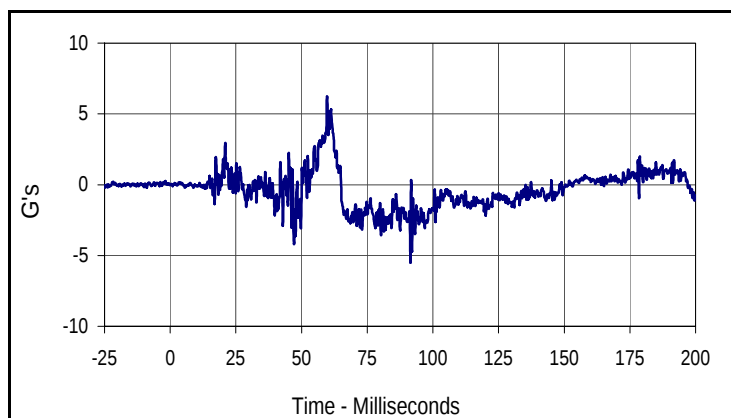
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Vehicle Right Rear X
Vehicle Right Rear X Velocity
Vehicle Right Rear X Displacement
Vehicle Engine Top
Vehicle Engine Top Velocity
Vehicle Engine Top Displacement
Vehicle Engine Bottom
Vehicle Engine Bottom Velocity
Vehicle Engine Bottom Displacement
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: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

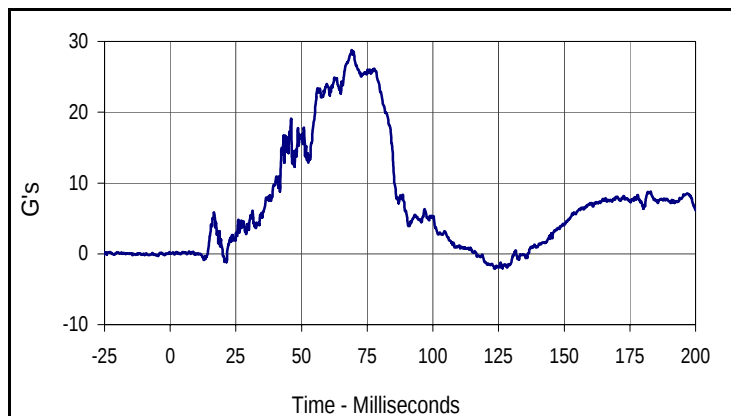
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 NHTSA No.: M70201



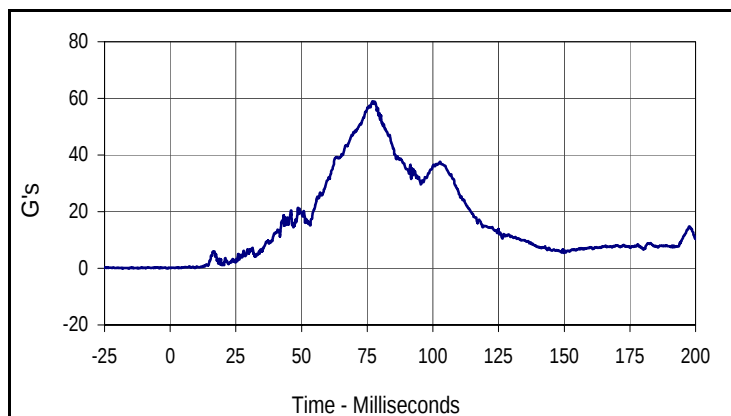
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001	FIL	1000	G's
Max	Time	Min	Time
12.3	197.8	-52.9	77.1



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CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
6.2	59.7	-5.5	91.4



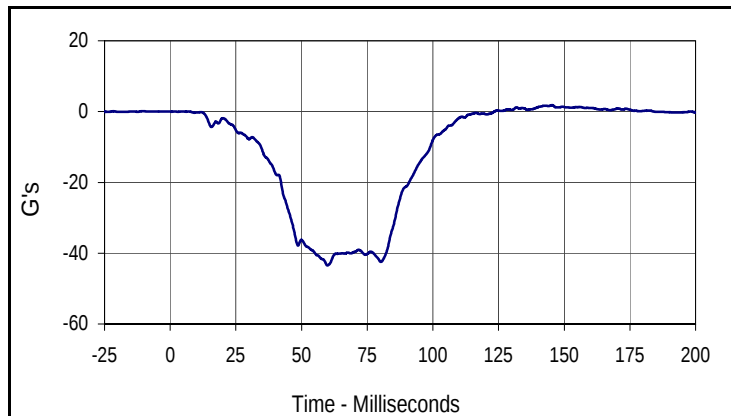
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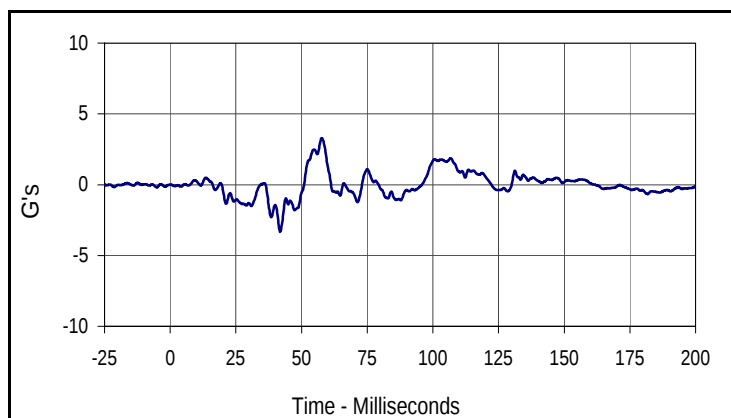
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Driver Head Resultant Primary			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
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Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

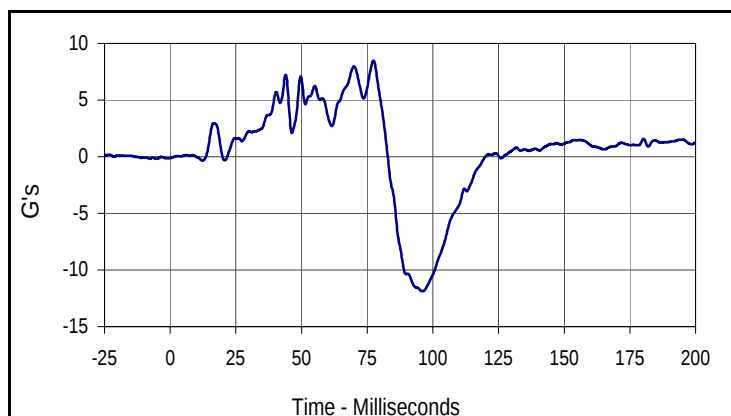
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 NHTSA No.: M70201



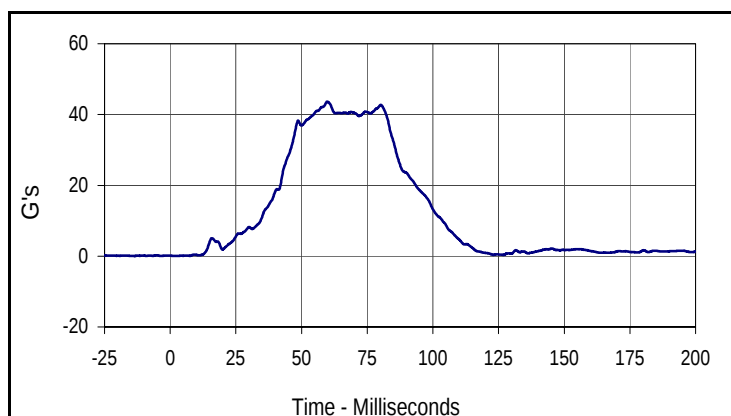
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Curve Description			
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Max	Time	Min	Time
3.3	57.7	-3.3	41.8



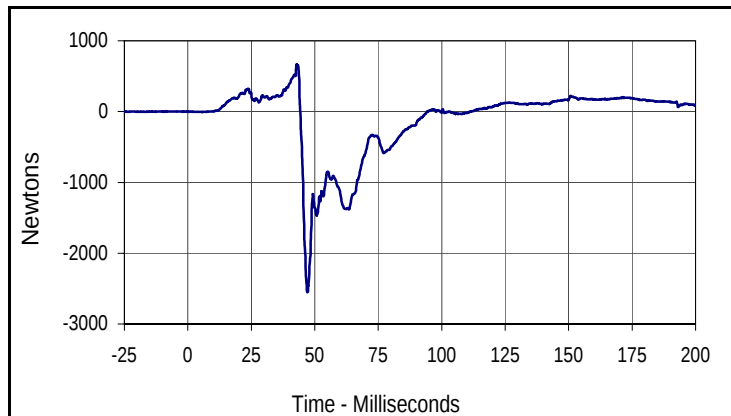
Curve Description			
Driver Chest Primary Z			
CURNO	Type	SAE Class	Units
006	FIL	180	G's
Max	Time	Min	Time
8.5	77.4	-11.9	96.0



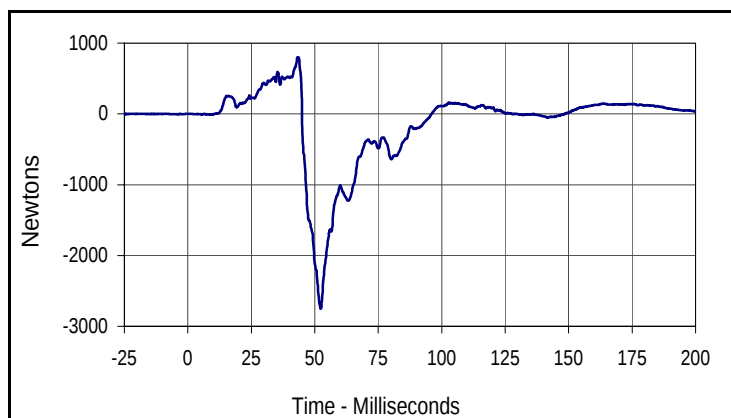
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Driver Chest Resultant Primary			
CURNO	Type	SAE Class	Units
004	RES	180	G's
Max	Time	Min	Time
43.6	59.8	0.1	0.9

Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

Test Date: 1/18/07
 NHTSA No.: M70201



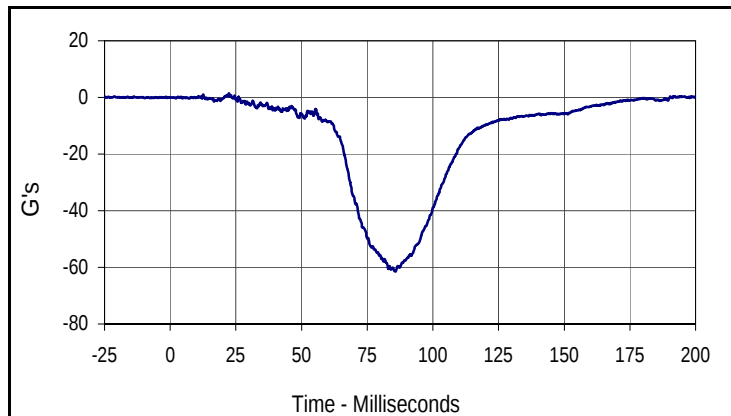
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Max	Time	Min	Time
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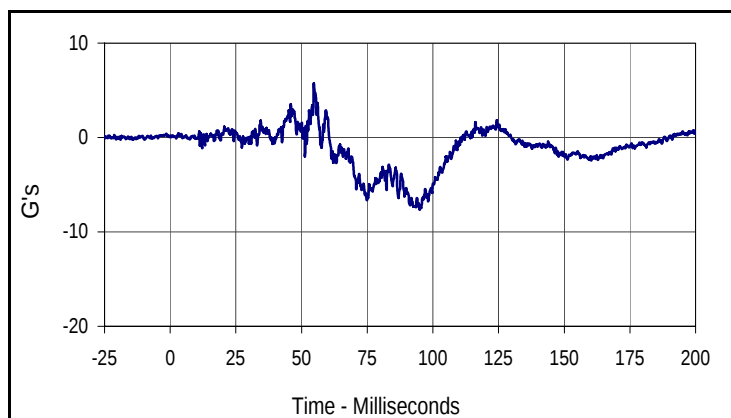
Curve Description			
Driver Right Femur Force Z			
CURNO	Type	SAE Class	Units
008	FIL	600	Newtons
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Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

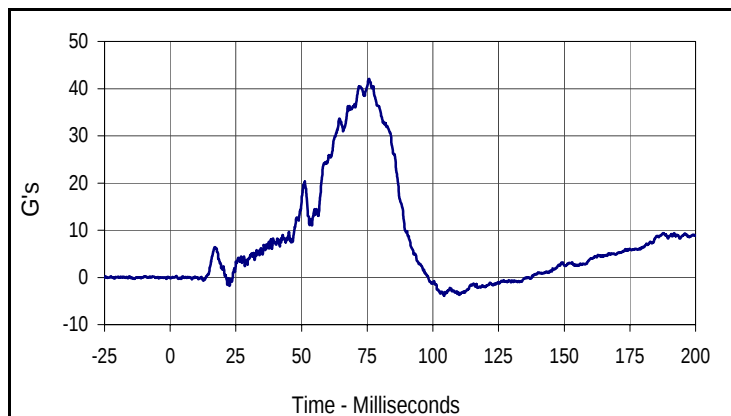
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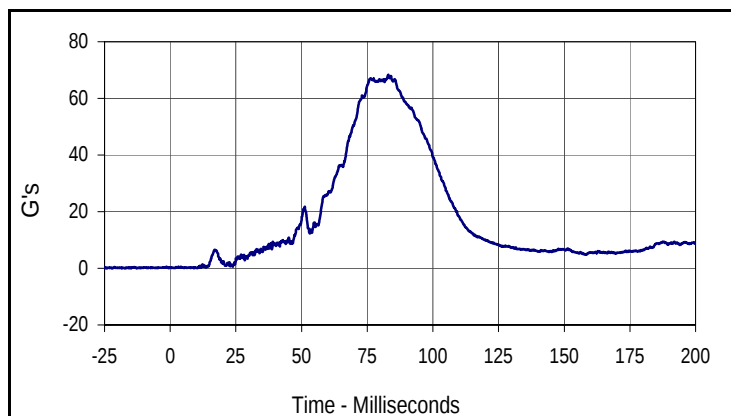
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1.4	22.4	-61.5	85.7



Curve Description			
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010	FIL	1000	G's
Max	Time	Min	Time
5.7	54.7	-7.6	95.0



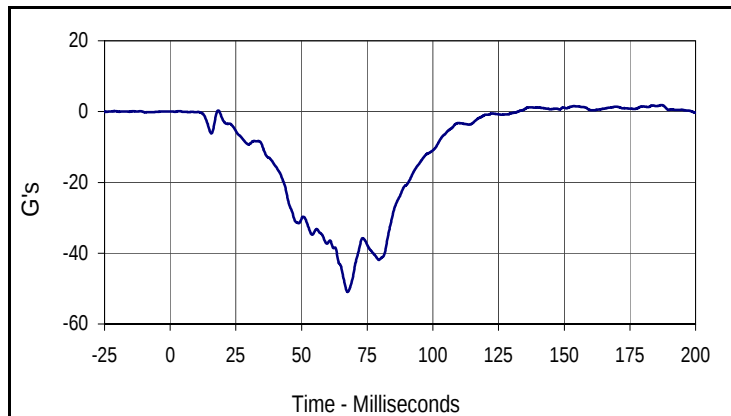
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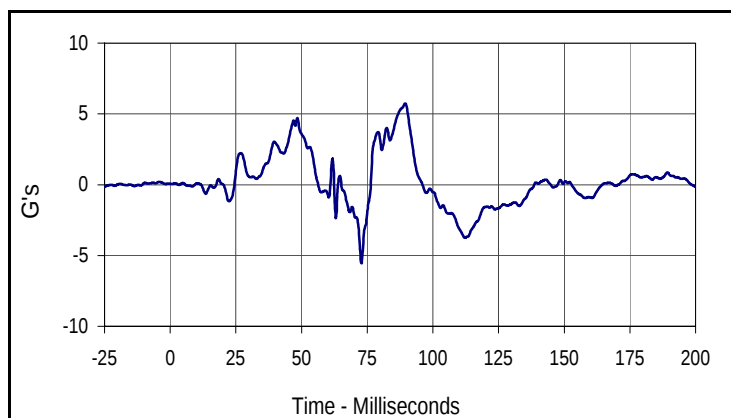
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Passenger Head Resultant Primary			
CURNO	Type	SAE Class	Units
009	RES	1000	G's
Max	Time	Min	Time
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Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

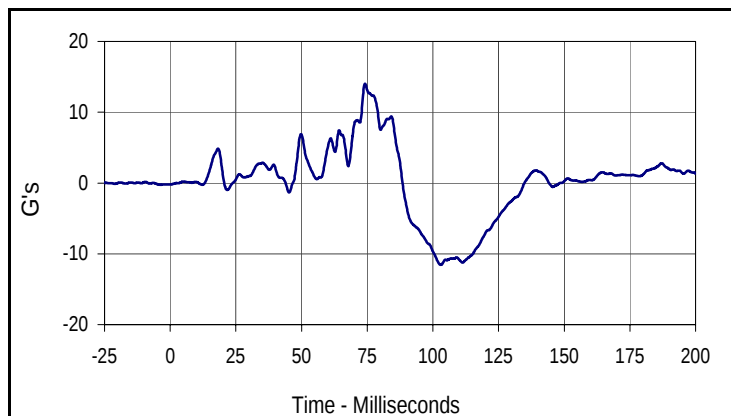
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 NHTSA No.: M70201



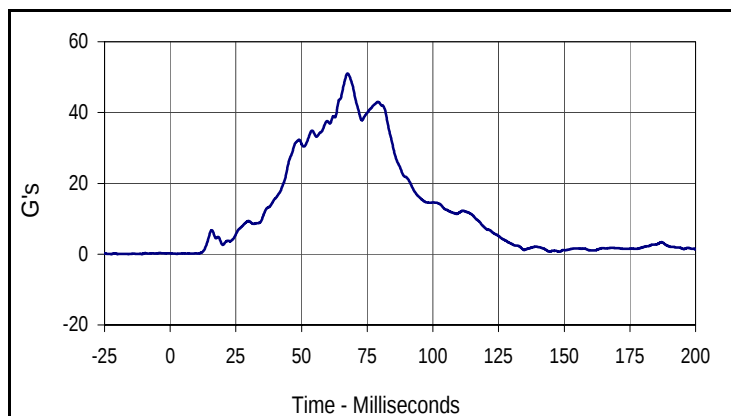
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Passenger Chest Primary X			
CURNO	Type	SAE Class	Units
012	FIL	180	G's
Max	Time	Min	Time
1.9	187.1	-50.9	67.5



Curve Description			
Passenger Chest Primary Y			
CURNO	Type	SAE Class	Units
013	FIL	180	G's
Max	Time	Min	Time
5.7	89.4	-5.6	72.8



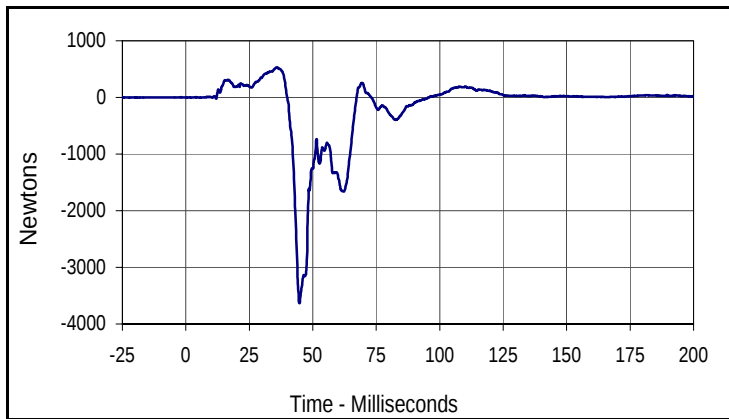
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Passenger Chest Primary Z			
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Max	Time	Min	Time
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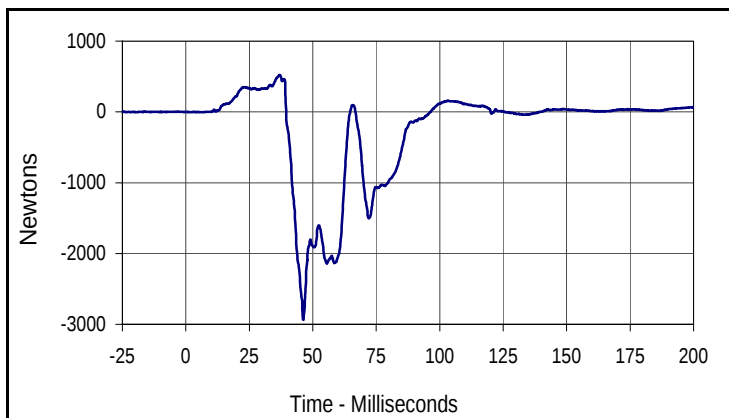
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Passenger Chest Resultant Primary			
CURNO	Type	SAE Class	Units
012	RES	180	G's
Max	Time	Min	Time
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Test Vehicle: 2007 Ford Edge SE AWD 5-Door MPV
 Test Program: 2007 NHTSA 35mph NCAP

Test Date: 1/18/07
 NHTSA No.: M70201



Curve Description			
Passenger Left Femur Force Z			
CURNO	Type	SAE Class	Units
015	FIL	600	Newtons
Max	Time	Min	Time
531.6	35.9	-3634.7	44.7



Curve Description			
Passenger Right Femur Force Z			
CURNO	Type	SAE Class	Units
016	FIL	600	Newtons
Max	Time	Min	Time
521.4	37.0	-2936.4	46.2

APPENDIX C
DUMMY CALIBRATION DATA

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

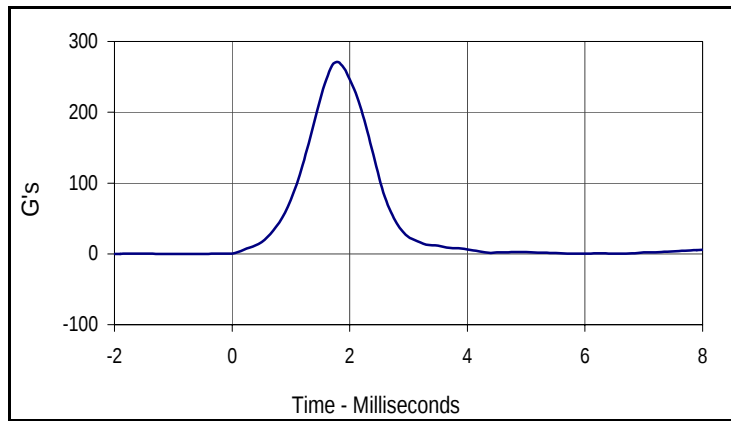
Test Date: 1/15/07

ATD Serial No.: 192

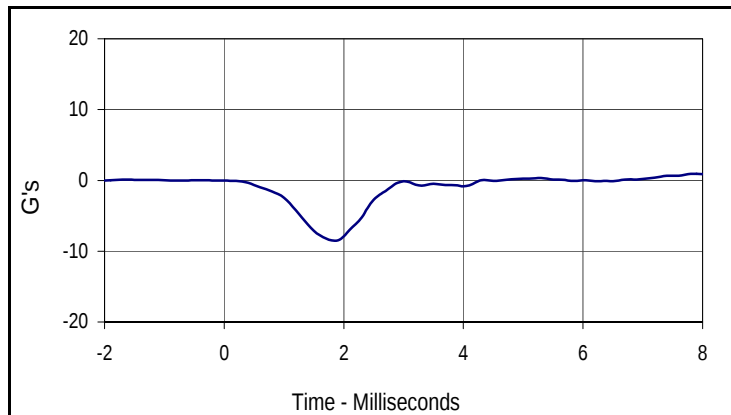
Test I.D.: HD01A



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	271.0	Pass
Peak Lateral Acceleration	G's	≤15.0	8.5	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results			Pass	



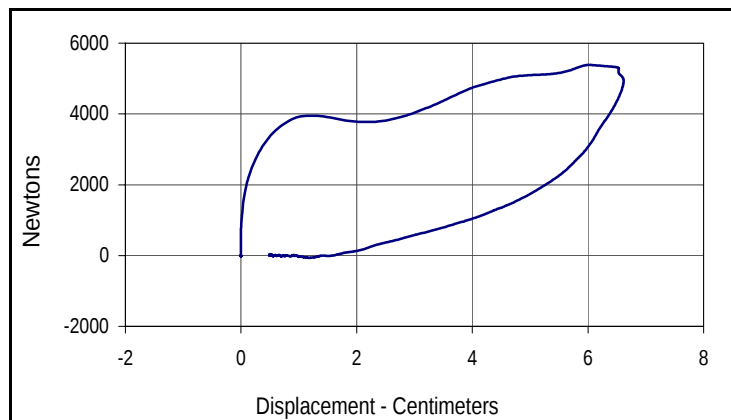
Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
271.0	1.8	0.0	-1.9



Curve Description			
Head Y			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
0.3	5.3	-8.5	1.8

Test Program: Hybrid III 50th Percentile Male Thorax Impact TestTest Date: 1/16/07ATD Serial No.: 192Test I.D.: CH01D

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	6.70	Pass
Peak Probe Force	Newtons	5159 to 5893	5384	Pass
Peak Sternum Deflection	CM	6.35 to 7.26	6.62	Pass
Internal Hysteresis	%	69 to 85	74.7	Pass
Overall Test Results				Pass



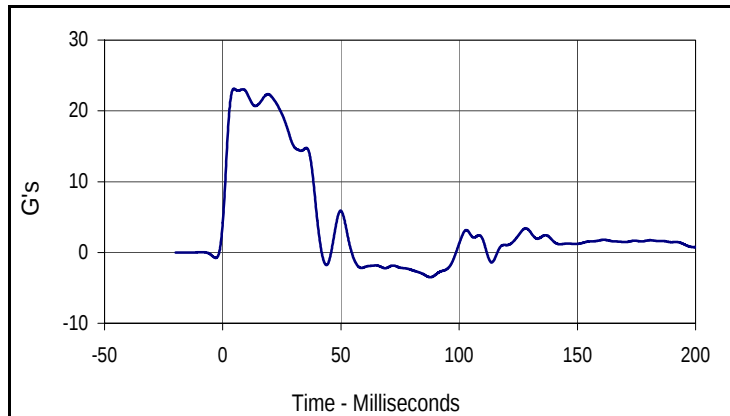
Curve Description			
Probe Force vs. Chest Deflection			
CURNO	Type	SAE Class	Hysteresis
001	FIL	180	74.7
Peak Probe Force		Peak Chest Deflection	
5384		6.62	

Test Program: Hybrid III 50th Percentile Male Neck Flexion Test
 ATD Serial No.: 192

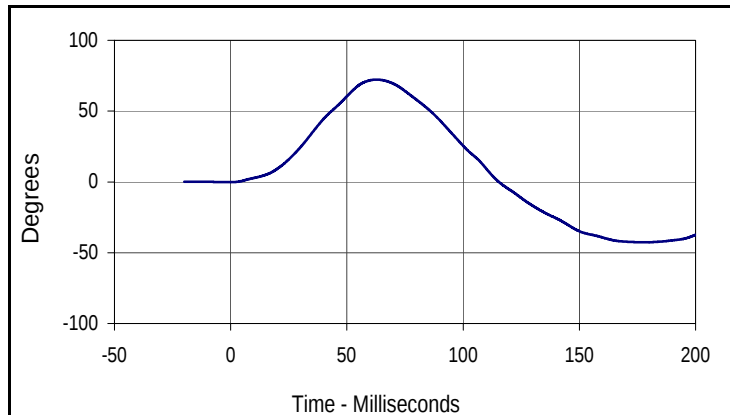
Test Date: 1/15/07
 Test I.D.: NF01A



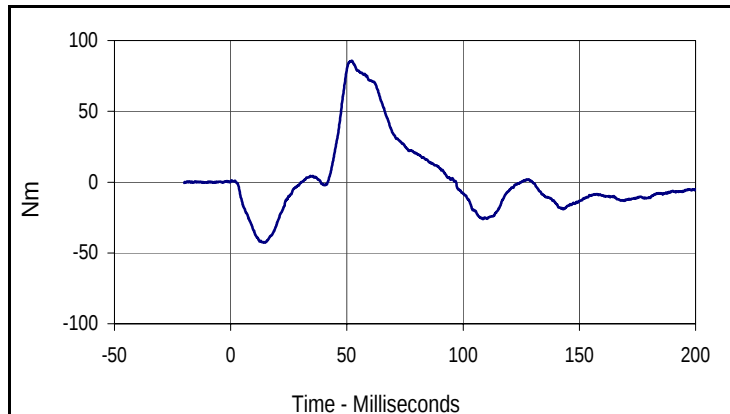
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	6.89 to 7.13	6.90	Pass
Pendulum Deceleration	10 Msec.	G's	22.5 to 27.5	22.6	Pass
	20 Msec.	G's	17.6 to 22.6	22.2	Pass
	30 Msec.	G's	12.5 to 18.5	15.0	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 29.0	15.0	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	34.0 to 42.0	39.9	Pass
Maximum "D" Plane Rotation	Max	Degrees	64.0 to 78.0	72.3	Pass
	Time	Msec.	57.0 to 64.0	62.7	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	113.0 to 128.0	115.4	Pass
Moment About Occ. Condyle	Max	Nm	84.1 to 108.5	85.8	Pass
	Time	Msec.	47.0 to 58.0	52.1	Pass
Positive Moment Decay, Time To Zero Crossing		Msec.	97.0 to 107.0	97.0	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Deceleration			
CURNO	Type	SAE Class	Units
001	FIL	60	G's
Max	Time	Min	Time
23.1	4.7	-3.5	87.8



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
72.3	62.7	-42.6	178.6



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
85.8	52.1	-42.7	14.7

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

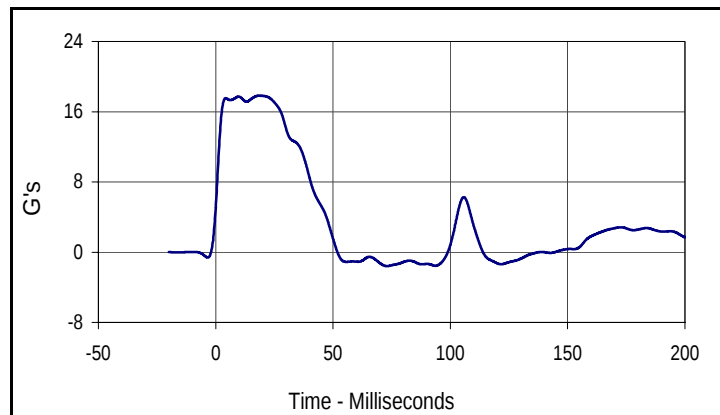
Test Date: 1/15/07

ATD Serial No.: 192

Test I.D.: NE01D



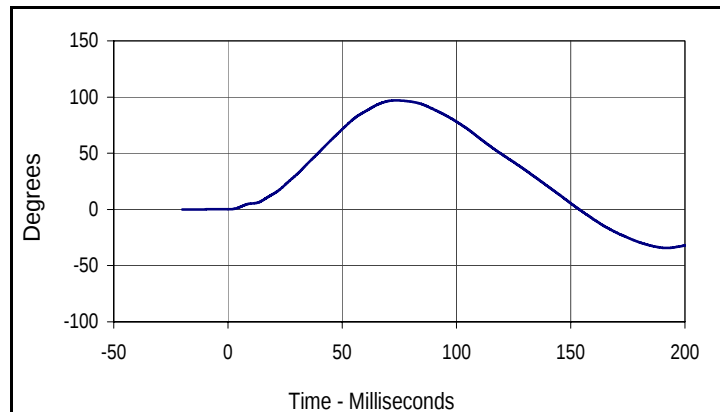
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	5.94 to 6.19	6.06	Pass
Pendulum Deceleration	10 Msec.	G's	17.2 to 21.2	17.7	Pass
	20 Msec.	G's	14.0 to 19.0	17.8	Pass
	30 Msec.	G's	11.0 to 16.0	14.1	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 22.0	14.1	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	38.0 to 46.0	45.6	Pass
Maximum "D" Plane Rotation	Max	Degrees	81.0 to 106.0	97.0	Pass
	Time	Msec.	72.0 to 82.0	73.4	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	147.0 to 174.0	153.8	Pass
Moment About Occ. Condyle	Max	Nm	-52.9 to- 79.9	-79.0	Pass
	Time	Msec.	65.0 to 79.0	67.7	Pass
Positive Moment Decay, Time To Zero Crossing		Msec.	120.0 to 148.0	140.5	Pass
			Overall Test Results		Pass



Curve Description

Pendulum Deceleration

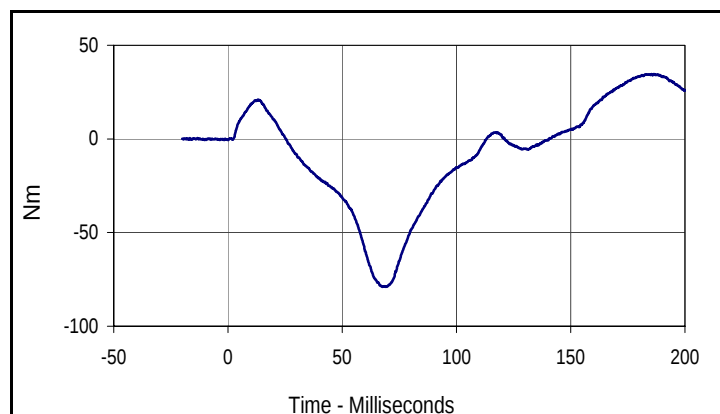
CURNO	Type	SAE Class	Units
001	FIL	60	G's
Max	Time	Min	Time
17.8	18.6	-1.6	73.0



Curve Description

"D" Plane Rotation

CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
97.0	73.4	-34.4	192.0



Curve Description

Moment About Occipital Condyle

CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
34.6	186.3	-79.0	67.7

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

Test Date: 1/12/07

ATD Serial No.: 192

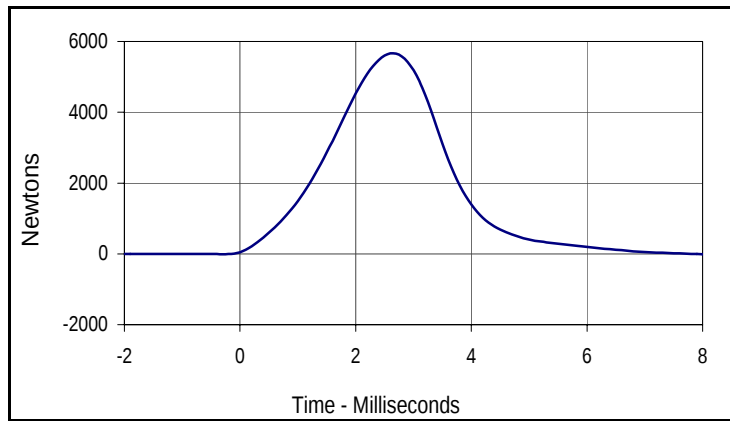
Test I.D.: LK01A , RK01A

**Left Knee**

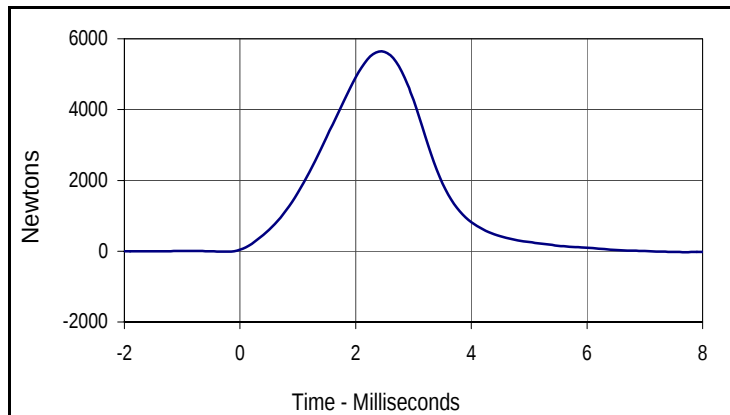
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity at T=0	m/sec	2.07 to 2.13	2.13	Pass
Peak Probe Force	Newtons	4715 to 5782	5662	Pass
Overall Test Results				Pass

Right Knee

Pendulum Velocity at T=0	m/sec	2.07 to 2.13	2.11	Pass
Peak Probe Force	Newtons	4715 to 5782	5639	Pass
Overall Test Results				Pass

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

CURNO	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Time	Min	Time
5661.7	2.6	-26.5	8.4

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

CURNO	Type	SAE Class	Units
002	FIL	600	Newtons
Max	Time	Min	Time
5639.3	2.4	-25.2	7.7

Test Program: Hybrid III 50th Percentile Male External Measurements

Test Date: 1/16/07

ATD Serial No.: 192

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	887	Pass
B - Shoulder pivot height	mm	505 to 521	512	Pass
C - "H" point height	mm	84 to 89	87	Pass
D - "H" point from seat back	mm	135 to 140	135	Pass
E - Shoulder pivot from back	mm	84 to 94	89	Pass
F - Thigh clearance	mm	140 to 155	152	Pass
G - Elbow back to wrist pivot	mm	290 to 305	301	Pass
H - Skull cap to back line	mm	41 to 46	45	Pass
I - Shoulder to elbow length	mm	330 to 345	331	Pass
J - Elbow rest height	mm	190 to 211	204	Pass
K - Buttock to knee length	mm	579 to 604	601	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	474	Pass
O - Chest depth	mm	213 to 229	223	Pass
P - Foot length	mm	251 to 267	251	Pass
V - Shoulder breadth	mm	422 to 437	431	Pass
W - Foot breadth	mm	91 to 107	103	Pass
Y - Chest circumference	mm	970 to 1001	986	Pass
Z - Waist circumference	mm	836 to 866	851	Pass
AA - Location for chest circumference	mm	429 to 434	432	Pass
BB - Location for waist circumference	mm	226 to 231	231	Pass
Overall Test Results				Pass

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

Test Date: 1/16/07

ATD Serial No.: 360

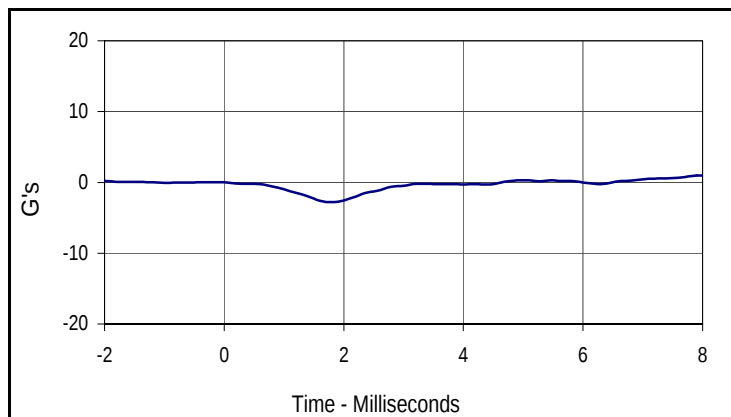
Test I.D.: HD01C



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	268.3	Pass
Peak Lateral Acceleration	G's	≤15.0	2.8	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
268.3	1.9	0.1	-1.4



Curve Description			
Head Y			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
0.3	5.0	-2.8	1.8

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

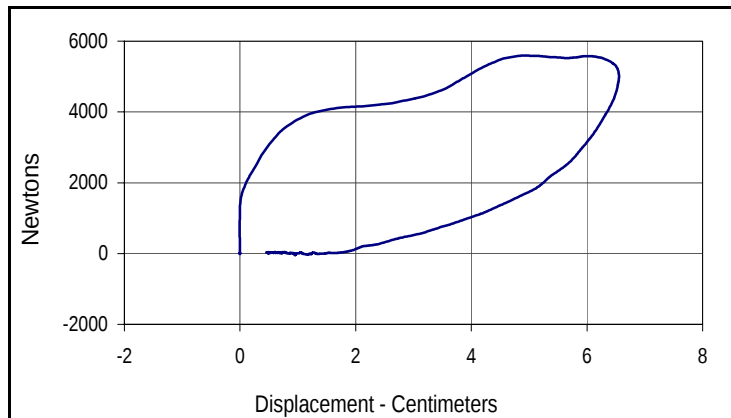
Test Date: 1/15/07

ATD Serial No.: 360

Test I.D.: CH01A



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	6.71	Pass
Peak Probe Force	Newtons	5159 to 5893	5592	Pass
Peak Sternum Deflection	CM	6.35 to 7.26	6.55	Pass
Internal Hysteresis	%	69 to 85	76.6	Pass
Overall Test Results				Pass



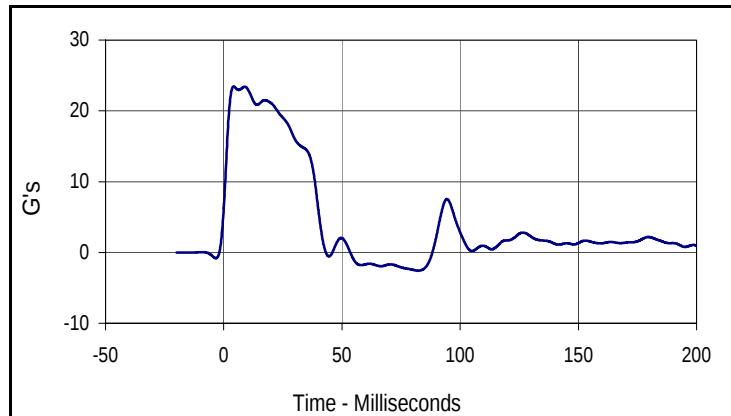
Curve Description			
Probe Force vs. Chest Deflection			
CURNO	Type	SAE Class	Hysteresis
001	FIL	180	76.6
Peak Probe Force		Peak Chest Deflection	
5592		6.55	

Test Program: Hybrid III 50th Percentile Male Neck Flexion Test
 ATD Serial No.: 360

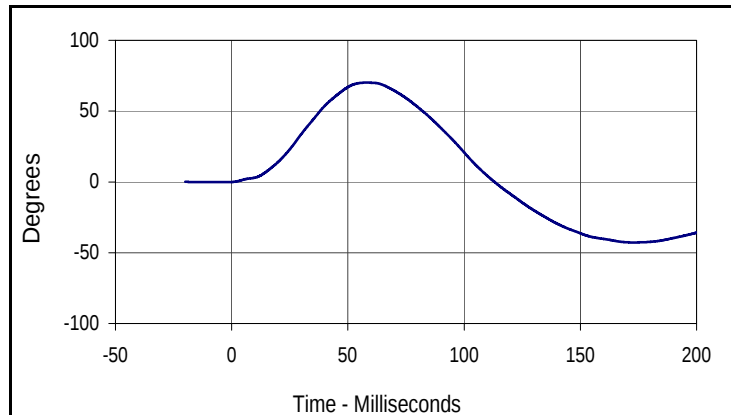
Test Date: 1/15/07
 Test I.D.: NF01B



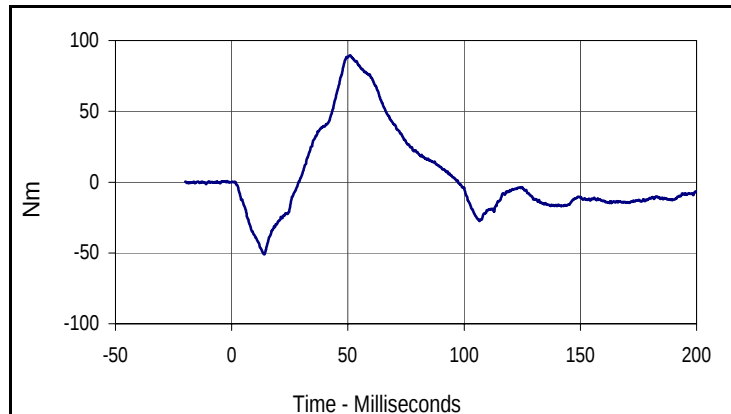
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	6.89 to 7.13	6.92	Pass
Pendulum Deceleration	10 Msec.	G's	22.5 to 27.5	23.1	Pass
	20 Msec.	G's	17.6 to 22.6	21.1	Pass
	30 Msec.	G's	12.5 to 18.5	16.0	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 29.0	16.0	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	34.0 to 42.0	40.4	Pass
Maximum "D" Plane Rotation	Max	Degrees	64.0 to 78.0	70.1	Pass
	Time	Msec.	57.0 to 64.0	58.0	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	113.0 to 128.0	113.1	Pass
Moment About Occ. Condyle	Max	Nm	84.1 to 108.5	89.6	Pass
	Time	Msec.	47.0 to 58.0	50.9	Pass
Positive Moment Decay, Time To Zero Crossing		Msec.	97.0 to 107.0	97.5	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Deceleration			
CURNO	Type	SAE Class	Units
001	FIL	60	G's
Max	Time	Min	Time
23.4	4.2	-2.6	82.2



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
70.1	58.0	-42.8	172.9



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
89.6	50.9	-50.9	14.0

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

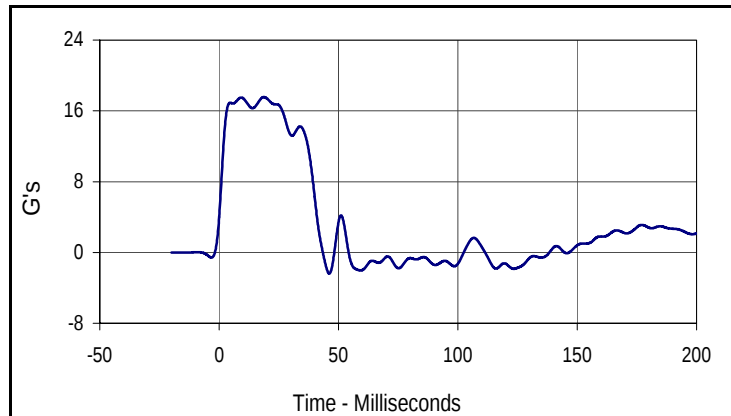
Test Date: 1/15/07

ATD Serial No.: 360

Test I.D.: NE01B



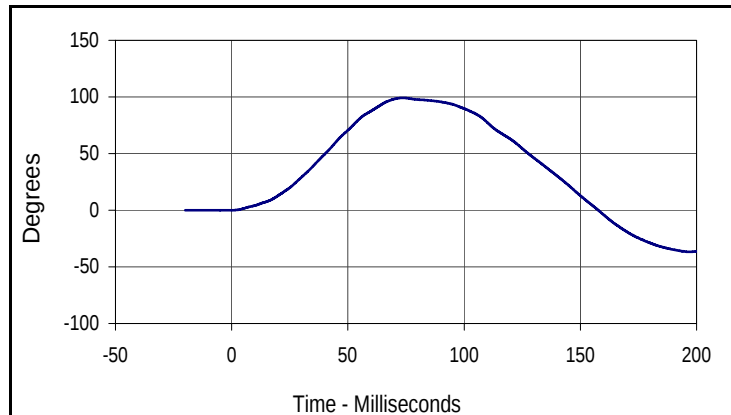
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	5.94 to 6.19	6.13	Pass
Pendulum Deceleration	10 Msec.	G's	17.2 to 21.2	17.4	Pass
	20 Msec.	G's	14.0 to 19.0	17.4	Pass
	30 Msec.	G's	11.0 to 16.0	13.3	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 22.0	14.2	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	38.0 to 46.0	40.6	Pass
Maximum "D" Plane Rotation	Max	Degrees	81.0 to 106.0	99.2	Pass
	Time	Msec.	72.0 to 82.0	73.6	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	147.0 to 174.0	157.8	Pass
Moment About Occ. Condyle	Max	Nm	-52.9 to- 79.9	-69.4	Pass
	Time	Msec.	65.0 to 79.0	70.4	Pass
Positive Moment Decay, Time To Zero Crossing		Msec.	120.0 to 148.0	142.0	Pass
Overall Test Results				Pass	



Curve Description

Pendulum Deceleration

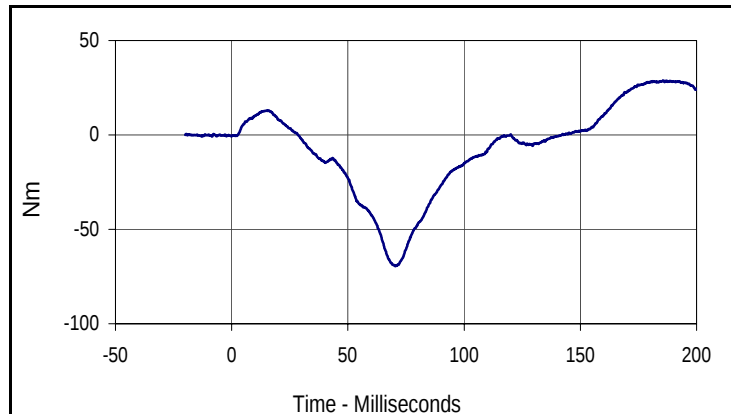
CURNO	Type	SAE Class	Units
001	FIL	60	G's
Max	Time	Min	Time
17.6	18.7	-2.4	46.1



Curve Description

"D" Plane Rotation

CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
99.2	73.6	-36.7	197.0



Curve Description

Moment About Occipital Condyle

CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
28.8	185.8	-69.4	70.4

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

Test Date: 1/17/07

ATD Serial No.: 360

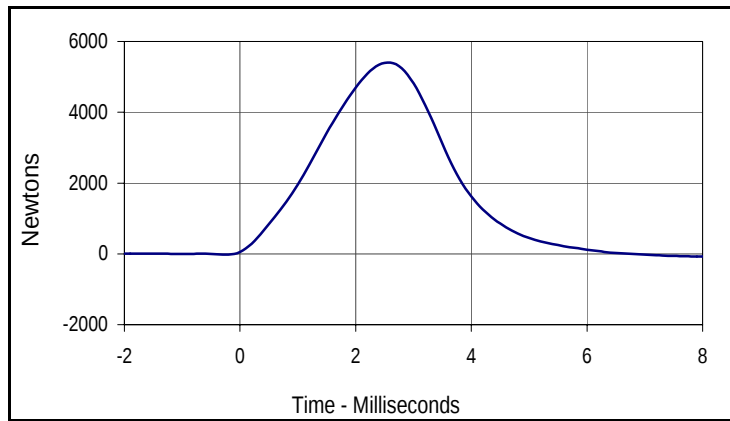
Test I.D.: LK01B , RK01B

**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	2.13	Pass
Peak Probe Force	Newtons	4715 to 5782	5405	Pass
Overall Test Results				Pass

Right Knee

Pendulum Velocity at T=0	m/sec	2.07 to 2.13	2.07	Pass
Peak Probe Force	Newtons	4715 to 5782	5544	Pass
Overall Test Results				Pass

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

CURNO	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Time	Min	Time
5405.2	2.6	-76.4	8.0

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

CURNO	Type	SAE Class	Units
002	FIL	600	Newtons
Max	Time	Min	Time
5544.3	2.8	-105.3	7.6

Test Program: Hybrid III 50th Percentile Male External Measurements

Test Date: 1/16/07

ATD Serial No.: 360

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	513	Pass
C - "H" point height	mm	84 to 89	86	Pass
D - "H" point from seat back	mm	135 to 140	137	Pass
E - Shoulder pivot from back	mm	84 to 94	89	Pass
F - Thigh clearance	mm	140 to 155	153	Pass
G - Elbow back to wrist pivot	mm	290 to 305	302	Pass
H - Skull cap to back line	mm	41 to 46	45	Pass
I - Shoulder to elbow length	mm	330 to 345	336	Pass
J - Elbow rest height	mm	190 to 211	206	Pass
K - Buttock to knee length	mm	579 to 604	601	Pass
L - Popliteal length	mm	429 to 455	452	Pass
M - Knee pivot height	mm	485 to 500	487	Pass
N - Buttock popliteal length	mm	452 to 477	473	Pass
O - Chest depth	mm	213 to 229	226	Pass
P - Foot length	mm	251 to 267	253	Pass
V - Shoulder breadth	mm	422 to 437	432	Pass
W - Foot breadth	mm	91 to 107	100	Pass
Y - Chest circumference	mm	970 to 1001	978	Pass
Z - Waist circumference	mm	836 to 866	851	Pass
AA - Location for chest circumference	mm	429 to 434	432	Pass
BB - Location for waist circumference	mm	226 to 231	229	Pass
Overall Test Results				Pass

Test Program: Dummy Damage Checklist
 ATD Serial No.: 192

Test Date: 1/16/07
 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.: 360

Test Date: 1/16/07
 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:
