REPORT NUMBER: TR-P29125-01-NC

MOVING BARRIER TO VEHICLE CRASH TESTING IN SUPPORT OF NHTSA FRONTAL OBLIQUE OFFSET PROGRAM

FMVSS NO. 214 MOVING BARRIER INTO LEFT FRONT OF A 2007 FORD TAURUS SE – 50% OFFSET-OBLIQUE 15°

NHTSA No: R70208

PREPARED BY:

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ADELANTO, CA 92301

NOVEMBER 17, 2009

FINAL REPORT

PREPARED FOR:

U.S. DEPARTMENT OF TRANSPORTATION / RITA / VOLPE CENTER

55 BROADWAY / RVT-92

CAMBRIDGE, MA 02142-1093

This final test report was prepared for the U.S. Department of Transportation / RITA / Volpe National Transportation Systems Center, in response to Contract Number DTRT57-05-D30106.

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TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
TR-P29125-01-NC		

4. Title and Subtitle
Final Report of a Moving Barrier to Vehicle Crash Test of a
2007 Ford Taurus SE 4-Door Sedan
NHTSA No. R70208

5. Report Date
December 2, 2009

6. Performing Organization Code
KAR

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TR-P29125-01-NC

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10. Work Unit No.

11. Contract or Grant No.
DTRT57-05-D30106

12. Sponsoring Agency Name and Address
U. S. Department of Transportation / RITA / Volpe Center
55 Broadway / RVT-92
Cambridge, MA 02142-1093

13. Type of Report and Period Covered
Final Test Report

14. Sponsoring Agency Code

15. Supplementary Notes

16. Abstract

A test was conducted in accordance with instructions outlined in Task Order DTRTV-T9001 in which a FMVSS 214 barrier moving at 128 km/h impacted a stationary 2007 Ford Taurus SE 4-Door Sedan. The Ford Taurus was positioned 15 degrees relative to the moving barrier and the barrier impacted 50 percent of the left side of the Ford Taurus. Data indicant of FMVSS 208, 212, 219 (partial), 301 and foot well intrusion performance was collected. The test was conducted at the KARCO Engineering, LLC. Facility in Adelanto, California on November 17, 2009.

The impact velocity of the moving barrier was 125.7 km/h. The Ford Taurus was positioned at an angle of 15.5 degrees and the offset of the MDB was 970 mm from the left side of the vehicle. The Ford Taurus's maximum post-test crush was 600 mm to the left of the vehicle centerline. The dummies Injury Assessment Values are as followed:

Measurement Description	Units	Driver ATD		Left Rear Passenger	
		Threshold	Result	Threshold	Result
Head Injury Criteria (HIC_{15})	N/A	700.0	233.6	700.0	533.8
3 ms Head Clip	g	80.0	49.6		
3 ms Thorax Clip	g	60.0	39.6		
3 ms Chest Clip	g			60.0	54.8
Neck Tension	N	2520	1887.1	2620	2143.9
Neck Compression	N	-3600	-527.3	-2520	-1262.6
Left Femur Force	N	-10000	-6546.9	-6805	-196.2
Right Femur Force	N	-10000	-6768.3	-6805	-174.0

17. Key Words
2007 Ford Taurus SE 4-Door Sedan
NHTSA No. R70208
15°, 50% Offset
129 km/h / 80 mph
50th THOR NT

18. Distribution Statement
Copies of this report are available from:
National Highway Traffic Safety Admin.
1200 New Jersey Ave., SE
Room W43-410
Washington, DC 20590

19. Security Classification of this report	20. Security Classification of this page	21. No. of Pages	22. Price
UNCLASSIFIED	UNCLASSIFIED	491	

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SECTION 1
PURPOSE AND TEST PROCEDURE

1.1 PURPOSE

This 129 km/h (80 mph) test was conducted in support of the National Highway Traffic Safety Administration's (NHTSA) Frontal Oblique Offset Program, under contract number DTRT57-05-D30106. The purpose of this test is to evaluate vehicle and occupant responses in a frontal oblique offset crash test.

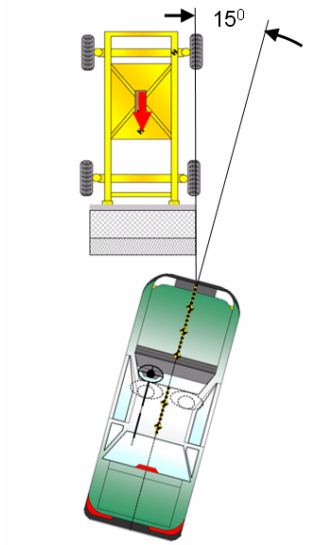
1.2 TEST PROCEDURE

This test was conducted in accordance with the instructions set forth by NHTSA/Volpe for a 15°, 50% offset moving barrier to vehicle impact, outlined in Task Order (TO) DTRTV-T9001. Data was obtained indicant of Federal Motor Vehicle Safety Standard (FMVSS) 208 – "Occupant Crash Protection", FMVSS 212 – "Windshield Mounting", FMVSS 219 (partial) – "Windshield Zone Intrusion", and FMVSS 301 – "Fuel System Integrity", in addition to the requirements of TO DTRTV-T90001.

SECTION 2
SUMMARY OF TEST

2.1 SUMMARY

A model year 2007 Ford Taurus SE 4-door sedan was impacted on the left front corner by an FMVSS 214 Moving Deformable Barrier. The test vehicle was stationary and positioned at a target angle of 15° and an offset of 50% to the line of forward motion of the MDB. The MDB was towed down the test track in a full forward direction, without any crabbing, and impacted the test vehicle at a velocity of 125.7 km/h (78.1 mph).



The test vehicle mass was 1740.0 kg (3837 lbs), and the MDB mass was 1366.0 kg (3012 lbs). The test was conducted by KARCO Engineering, LLC. on November 17, 2009.

The test was documented by two (2) real time and fifteen (15) high-speed video cameras. Camera locations and other pertinent data are located in Data Sheet No. 17 of this report. Pre- and post-test photographs of the test vehicle, the MDB and the test setup were taken using a digital still camera. Photographic documentation of the test is presented in Appendix A of this report.

One 50% adult male THOR NT anthropomorphic test device (ATD) (Serial No.: 6) was seated in the left front (driver's) seating position and one Part 572O 5% adult female ATD (Serial No.: 630) was seated in the left rear seating position. Both ATD's were positioned according to instructions specified in FMVSS 208, the driver for a Part 572E 50% adult male Hybrid III ATD in the driver position, and the left rear passenger for a Part 572O 5% adult female Hybrid III ATD in the front seat passenger position. The driver was restrained with a 3-point seat belt and a dual stage frontal airbag. The left rear passenger was restrained with a 3-point seat belt.

One-hundred ninety-two (192) channels of data from the two ATD's, test vehicle and MDB were collected using a TDAS data acquisition system. Appendix B contains dummy response data plots, as well as vehicle and MDB response data plots.

There was 74.5% total windshield retention, with 71.6% and 77.3% retention on the left and right sides respectively. There appeared to be no intrusion into the protected zone of the windshield during any portion of the impact test.

The maximum static crush of the exterior of the vehicle was 600 mm at DPD 3 to the left of the vehicle's centerline. The maximum crush of the underlying structure was 815 mm at DPD 1 of the lower bumper beam, to the left of the vehicle's centerline. Full vehicle measurements are presented in Section 3 of this report.

All four vehicle doors remained closed and latched during the test. The left front, right front and right rear doors were all jammed shut as a result of the impact. The left rear door remained operational.

The driver ATD's visible contact points are as follows: the head contacted the airbag, door frame and headrest; the chest contacted the airbag; both the left and right knees contacted the knee bolster.

The left rear passenger ATD's visible contact points are as follows: the head contacted the chest, C-Pillar and seatback; the knees had no apparent contact points.

OCCUPANT INJURY CRITERIA SUMMARY

Measurement Description	Units	Driver ATD		Passenger ATD	
		Threshold	Result	Threshold	Result
Head Injury Criteria (HIC_{15})	n/a	700	233.6	700	533.8
3 ms Head Clip	g	80	49.6		
3 ms Thorax Clip	g	60	39.6		
3 ms Chest Clip	g				54.8
Neck Tension	N	2,520	1887.1	2,620	2143.9
Neck Compression	N	-3,600	-527.3	-2,520	-1262.6
Left Femur Force	N	-10,000	-6546.9	-6,805	-196.2
Right Femur Force	N	-10,000	-6768.3	-6,805	-174.0

SECTION 3

DATA SHEETS

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

CONVERSION FACTORS USED IN THE REPORT

Quantity	Typical Application	Std Units	Metric Unit	Multiply By
Mass	Vehicle Weight	lb	kg	0.4535
Linear Velocity	Impact Velocity	mile/h	km/h	1.609344
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	^oF	^oC	=(tf -32)/1.8
Force	Dynamic Forces	lbf	N	4.448
Moment	Torque	lbf•ft	Nm	1.355

DATA SHEET NO. 1

CRASH TEST SUMMARY

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

PRIMARY IMPACT DATA

Measured Parameter	Units	Value
MDB Velocity at Impact	km/h	125.7
Test Vehicle Angle	°	15.5
MDB Test Weight	kg	1366.0
Vehicle Test Weight	kg	1740.0
MDB Maximum Static Crush	mm	439
Vehicle Maximum Static Crush	mm	815
Actual Vehicle Offset	mm	970 [1]

MDB SPECIFICATIONS

Measurement Description	Units	Value
Overall Width of Framework Carriage	mm	1252
Overall Length, Including Honeycomb Face	mm	4115
Wheelbase of Framework Carraige	mm	2590
CG Location Aft of Front Axle	mm	1141

MAXIMUM STATIC CRUSH OF HONEYCOMB FACE

Vertical Location			From Centerline		Max. Crush
Row	Description	Height	Distance	Direction	
A	Center of Bumper	432	300	Left	442
B	Top of Bumper	533	800	Left	365
C	Mid Level	686	800	Left	314
D	Top of Stack	813	800	Left	300

DOOR OPENING AND SEAT TRACK DATA

Description	Driver Side	Passenger Side
Front Door Opening	Remained closed and latched, jammed shut	Remained closed and latched, jammed shut
Rear Door Opening	Remained closed and latched, operational	Remained closed and latched, jammed shut
Seat Track Shift (mm)	14 mm	
Seat Back Failure	No	No

[1] – Offset is measured from the left edge of the MDB to the left edge of the vehicle.

DATA SHEET NO. 1 … (CONTINUED)

CRASH TEST SUMMARY

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09

STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations	
Pillar Performance	No separation occurred	
Sill Separation	Driver's side front sill separated	[2]
Windshield Damage	Broken, separated from frame	[3]
Window Damage	Left front window broke in door	
Other Notable Effects	Floorpan separated from sill inside driver area	[2]

TEST DUMMY DATA

Description	Driver	Rear Passenger
Dummy Type / Serial No.	THOR 50th NT, S/N 0006	P572O, 5% Adult Female, S/N: 630
Lower Legs	Left: 0039, Right: 0109	
Head Contact	Airbag, Door Frame, Headrest	Chest, C-Pillar, Seat Back
Chest Contact	Airbag	Head
Abdomen Contact	None	None
Left Knee Contact	Knee Bolster	None
Right Knee Contact	Knee Bolster	None

VIDEO COVERAGE

Camera Type	Number
Real Time	2
High-Speed Off-Board	10
High-Speed MDB On-Board	1
High-Speed Vehicle On-Board	4
Total	17

DATA CHANNELS

Description	Number
Driver ATD Sensors	119
Driver ATD Contact Switches	3
Rear Passenger ATD Sensors	36
Belt Assessment Sensors	4
MDB Structure Accelerometers	6
Vehicle Structure Accelerometers	22
Airbag Sensors	2
Total	192

[2] – See Figures 313 and 314 of Appendix A.

[3] – See Figures 311 and 312 of Appendix A.

DATA SHEET NO. 1 … (CONTINUED)

CRASH TEST SUMMARY

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

DATA CHANNEL ANOMALIES

Channel	Description	Axis	Unit	Problem
30	Driver Upper Spine T1	Z	g	Channel failed, no data
47	Driver Lower CRUX Middle Rotation		°	Questionable data
85	Driver Left Foot	X	g	Channel failed at 69.3 ms
105	Driver Right Foot	Y	g	Channel failed at 61.4 ms
170	Right Brake Caliper	X	g	Channel failed, no data
190	MDB Rear Centerline	X	g	Data signal clipped at 100g
192	MDB Rear Centerline	Z	g	Channel failed, no data

DATA SHEET NO. 2

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09

TEST VEHICLE INFORMATION AND OPTIONS

NHTSA No.	R70208	Anti-Lock Brakes	Yes
Year	2007	Traction Control	No
Make	Ford	All Wheel Drive	No
Model	Taurus SE	Power Steering	Yes
Body Style	4-Door Sedan	Driver Front Airbag	Yes
VIN	1FAFP53U47A117785	Driver Side Torso Airbag	No
Color	Black	Driver Side Head Airbag	No
Delivery Date	7/29/2009	Driver Curtain/Airbag	No
Odometer (Miles)	31,462	Rear Pass. Airbag	No
Dealer	Sunrise Ford Fontana	Rear Pass. Side Airbag	No
Transmission	4-Speed Automatic	Rear Pass. Head Airbag	No
Final Drive	Front	Rear Pass. Curtain/Airbag	No
Type/No. Cyl.	V6	Pre-Tensioners	Yes
Engine Disp. (L)	3.0	Load Limiters	Yes
Engine Placement	Transverse	Bucket Seats	Yes
Roof Rack	No	Air Cond.	Yes
Sunroof/T-Top	No	AM/FM CD	Yes
Tinted Glass	No	Tilt Steering	Yes
Power Brakes	Yes	Automatic Door Locks	Yes
Front Disc	Yes	Power Windows	Yes
Rear Disc	No	Power Seats	Yes

Does Owners Manual provide instructions to turn off automatic door locks.	No

DATA FROM CERTIFICATION LABEL

Manufactured By	Ford Motor Co.	GVWR (kg)	2,125
		GAWR Front (kg)	1,158
Date of Manufacture	May-06	GAWR Rear (kg)	967

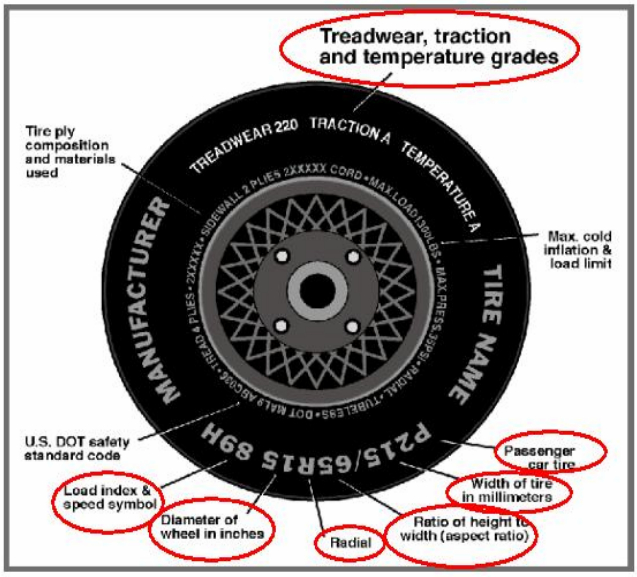
VEHICLE SEATING AND CAPACITY WEIGHT INFORMATION

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bench		
Number of Occupants	2	3		5
Capacity Weight (VCW) (kg)				498.0
Cargo Weight (RCLW) (kg)				157.8

DATA SHEET NO. 2 … (CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



TIRE DATA

Description	Front	Rear
Max. Tire Pressure	300	300
Cold Tire Pressure	205	205
Recommended Tire Size	P215/60R16	P215/60R16
Actual Tire Size	P215/60R16	P215/60R16
Tire Manufacturer	Continental	Continental
Tire Model	Touring Contact AS	Touring Contact AS
Load Range	670	670
Treadware Rating	520	520
Traction Rating	A	A
Temperature Rating	B	B
Tire Plies Sidewall	1 Polyester	1 Polyester
Tire Plies Body	1 Polyester, 2 Steel	1 Polyester, 2 Steel
Load Index/Speed Symbol	94T	94T
Tire Material	Polyester, Steel	Polyester, Steel
DOT Safety Code Left	LLX8 3RJ 1907	LLX8 3RJ 1907
DOT Safety Code Right	LLX8 3RJ 1907	LLX8 3RJ 1907

DATA SHEET NO. 2 … (CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

TEST VEHICLE WEIGHTS

	Units	As Delivered Weights (UVW)			As Tested Weights (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	473.5	280.0	753.5	477.0	370.0	847.0
Right	kg	481.5	257.0	738.5	503.0	390.0	893.0
Ratio	%	64.0	36.0	100.0	56.3	43.7	100.0
Total	kg	955.0	537.0	1492.0	980.0	760.0	1740.0

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1492.0
Weight of 1 THOR 50th NT ATD	kg	101.0
Weight of 1 P572O ATD	kg	56.0
Rated Cargo/Luggage Wt (RCLW)	kg	157.8
Calculated Vehicle Target Wt (TVTW)	kg	1806.8 [4]

TEST VEHICLE ATTITUDES AND CG

	Units	LF	RF	LR	RR	CG Aft of Front Axle
As Delivered	mm	713	718	688	690	992
As Tested	mm	706	716	608	625	1204

GENERAL TEST VEHICLE DATA

Vehicle Wheelbase (mm):	2757
Weight of Ballast Secured in Cargo Area (kg):	33.0
Weight of Items Removed (kg):	19.5
Vehicle Components Removed:	Spare Tire, Jack and Tools, Rear Side Windows

FUEL SYSTEM DATA

Fuel System Capacity From Owner's Manual (L):	68.13
Actual Test Volume with Entire Fuel System Filled (L):	63.36
Test Fluid Type:	Stoddard Solvent
Kinematic Viscosity:	per ASTM D 484-71
Type of Vehicle Fuel Pump:	Electric

[4] – COTR requested Test Weight of 1733 kg.

DATA SHEET NO. 2 … (CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

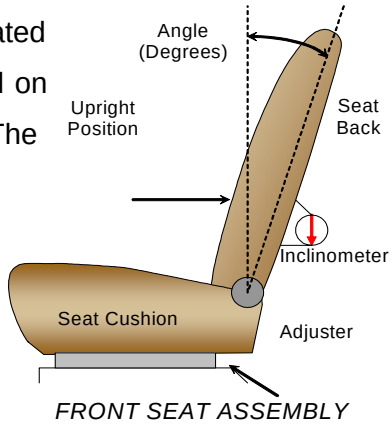
Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

NOMINAL DESIGN RIDING POSITION

The driver seat back is positioned to the manufacturer's designated angle. The procedure is as follows: a digital inclinometer is placed on the seat back 330 mm (13 in.) above the seat back pivot point. The left rear passenger seat back is fixed.

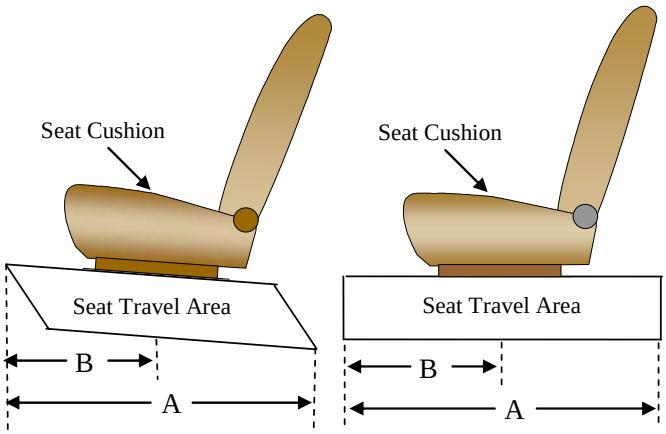
Description	Value
Driver w/Seated Dummy	18.5°
Left Rear Passenger w/Seated Dummy	Fixed



SEAT FORE/AFT POSITIONS

Total seat travel is measured from forward most possible position to the rearmost possible position. The driver seat is set to the longitudinal mid position, with the seat in the lowest possible height position. The left rear passenger seat is not adjustable horizontally or vertically.

Seating Position	Total Fore-Aft Travel	Test Position
Driver Seat	281 mm	141 mm
Left Rear Passenger Seat	Fixed	Fixed



SEAT BELT UPPER ANCHORAGE

The driver's seat belt upper anchorage is placed in the nominal design riding position for a 50th percentile adult male. The left rear passenger seat belt upper anchorage is fixed. Position number one (1) is considered the uppermost position.

Seating Position	Total No. of Positions	Test Position
Driver Seat	4	1
Left Rear Passenger Seat	Fixed	Fixed

DATA SHEET NO. 2 … (CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

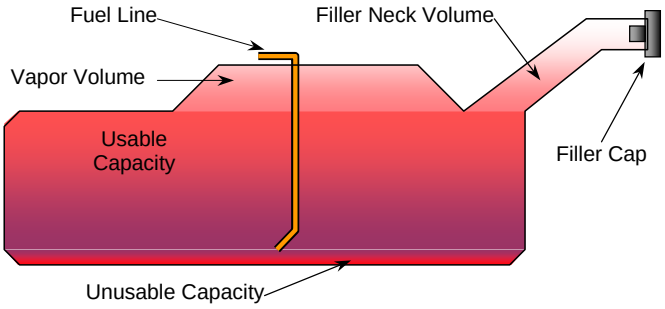
Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

FUEL TANK CAPACITY DATA

Description	Units	Value
Usable Capacity of "Standard Tank"	L	68.13
Usable Capacity of "Optional" Tank	L	
Allowable Capacity used for FMVSS 301	L	62.68 to 64.04
Actual Amount of Solvent used	L	63.36

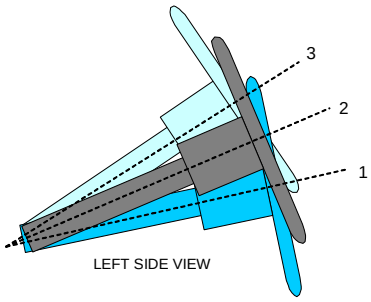
The test vehicle is equipped with an electric fuel pump. The fuel pump will operate when the key is in the "ON" position or when the engine is activated. The fuel filler door is located on the right rear fender. The standard fuel tank occupies the area under the rear seat.



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. The vehicle's steering column did not telescope.



STEERING COLUMN ASSEMBLY

STEERING COLUMN POSITIONS

Description	Tilt Angle (°)	Fore/Aft Position (mm)
Lowermost positon No. 1	13.2	
Geometric center position No. 2	21.3	
Uppermost position No. 3	29.4	

DATA SHEET NO. 3

POST-IMPACT OBSERVATIONS

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION

Restraint Type	Left Front (Driver)		Left Rear (Passenger)	
	Installed	Deployed	Installed	Deployed
Front Airbag	Yes	Yes	No	
Knee Airbag	No		No	
Side Torso Airbag	No		No	
Side Head Airbag	No		No	
Curtain Airbag	No		No	
Pre-Tensioners	Yes	Yes	No	
Load Limiters	Yes	Yes	No	

IMPACT DATA

Measurement Description	Units	Value
Horizontal Offset from Target	mm	+40 (Left)
Vertical Offset from Target	mm	+2 (Up)
Stationary Vehicle Angle Relative to MDB	°	15.5

VEHICLE STATIC CRUSH

Measured Parameter	Units	Value
Left Side	mm	387
Centerline	mm	535
Right Side	mm	21

DATA SHEET NO. 4

OCCUPANT INJURY ASSESSMENT DATA

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

DRIVER ANTHROPOMORPHIC TEST DEVICE

Location	Metric	Description	SAE Filter Class	Max	Min
Head	Alpha-x	Angular acceleration (rad/sec^2)	simon	2306.0	-1977.6
	Alpha-y	Angular acceleration (rad/sec^2)	simon	1200.1	-2106.8
	Alpha-z	Angular acceleration (rad/sec^2)	simon	2719.2	-3889.5
	Alpha-res	Angular acceleration - resultant (rad/sec^2)	simon	4390.1	
	Wx	Angular velocity (rad/sec)	simon	21.2	-19.6
	Wy	Angular velocity (rad/sec)	simon	9.7	-17.5
	Wz	Angular velocity (rad/sec)	simon	37.9	-10.7
	Wres	Angular velocity - resultant (rad/sec)	simon	43.1	
	HIC36	36 ms clip	1000	288.2	
	HIC15	15 ms clip	1000	233.6	
	SFC	Skull fracture correlate	simon	47.5	
	CSDM	Cumulative strain (Tolerance = 0.05)	simon	1.0	
	CSDM	Cumulative strain (Tolerance = 0.10)	simon	0.6	
	CSDM	Cumulative strain (Tolerance = 0.15)	simon	0.2	
	Head CG G's	Head resultant CG acceleration, 3 ms clip (g's)	1000	49.6	
Neck	Fx at OC	UNLC Fx transferred to OC, neck system (N)	1000	284.1	-400.2
	Fz	UNLC Fz, neck system Tension (N)	1000	1887.1	-527.1
	Fz	UNLC Fz, neck system Compression (N)	1000	1887.1	-527.1
	My at OC	UNLC My transferred to OC, neck system Flexion (N-m)	1000, 600	6.2	-15.1
	My at OC	UNLC My transferred to OC, neck system Extension (N-m)	1000, 600	6.2	-15.1
	Fx_OC	On head acting through total neck section, (N)	1000	266.7	-264.4
	Fy_OC	On head acting through total neck section, (N)	1000	405.9	-124.6
	Fz_OC	On head acting through total neck section, (N)	1000	1880.0	-344.9
	Mx_OC	On head acting through total neck section, (Nm)	600	35.9	-27.8
	My_OC	On head acting through total neck section, (Nm)	600	20.2	-23.4
	Mz_OC	On head acting through total neck section, (Nm)	600	8.4	-29.9
	Fx_head	On head acting through O.C. joint only (N)	1000	260.2	-399.3
	Fz_head	On head acting through O.C. joint only (N)	1000	1872.0	-529.5
	My_head	On head acting through O.C. joint only (Nm)	600	6.2	-15.1

DATA SHEET NO. 4 … (CONTINUED)

OCCUPANT INJURY ASSESSMENT DATA

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

DRIVER ANTHROPOMORPHIC TEST DEVICE … (CONTINUED)

Location	Metric	Description	SAE Filter Class	Max	Min
Chest	UR x	Upper Crux x-defl , Right (mm)	180	0.0	-36.0
	UR y	Upper Crux y-defl , Right (mm)	180	5.2	-25.9
	UR z	Upper Crux x-defl , Right (mm)	180	17.3	-2.9
	UR d	Upper Crux "d" displacement , Right (mm)	180	0.0	-33.5
	UL x	Upper Crux x-defl , Left (mm)	180	4.2	-23.1
	UL y	Upper Crux y-defl , Left (mm)	180	9.4	-23.7
	UL z	Upper Crux x-defl , Left (mm)	180	10.6	-5.0
	UL d	Upper Crux "d" displacement , Left (mm)	180	0.7	-15.5
	LR x	Lower Crux x-defl , Right (mm)	180	4.7	-10.6
	LR y	Lower Crux y-defl , Right (mm)	180	3.0	-5.9
	LR z	Lower Crux x-defl , Right (mm)	180	28.7	-1.4
	LR d	Lower Crux "d" displacement , Right (mm)	180	0.5	-29.1
	LL x	Lower Crux x-defl , Left (mm)	180	9.8	-4.8
	LL y	Lower Crux y-defl , Left (mm)	180	8.9	-3.9
	LL z	Lower Crux x-defl , Left (mm)	180	6.9	-14.7
	LL d	Lower Crux "d" displacement , Left (mm)	180	14.9	-5.9
	Chest CG G's	Chest CG acceleration, 3 ms clip, (G's)	180	39.6	
Abdomen	Up x	Max upper string pot (mm)	180	13.4	-3.0
	Up V*C	Upper viscous criteria	180	0.0	
	LR x	Lower right x-deflection (mm)	180	0.0	-37.0
	LR y	Lower right y-deflection (mm)	180	0.0	-16.3
	LR z	Lower right z-deflection (mm)	180	14.8	0.0
	LR V*C	Right viscous criterion based on x-deflection	180	0.8	
	LL x	Lower left x-deflection (mm)	180	1.9	-16.2
	LL y	Lower left y-deflection (mm)	180	31.3	0.0
	LL z	Lower left z-deflection (mm)	180	2.2	2.2
	LL V*C	Left viscous criterion based on x-deflection	180	1.3	
Pelvis	CG res.	Pelvis cg resultant acceleration (G)	1000	58.6	
Acetabulum	R Fx	Right Fx force (N)	600	379.5	-1863.4
	R Fy	Right Fy force (N)	600	3418.8	-303.0
	R Fz	Right Fz force (N)	600	1408.2	-708.2
	R Rres.	Resultant of Fx, Fy, Fz (N)	600	3988.0	
	L Fx	Left Fx force (N)	600	335.5	-2778.0
	L Fy	Left Fy force (N)	600	1845.0	-435.8
	L Fz	Left Fz force (N)	600	2342.9	-592.6
	L Rres.	Resultant of Fx, Fy, Fz (N)	600	3650.3	

DATA SHEET NO. 4 … (CONTINUED)

OCCUPANT INJURY ASSESSMENT DATA

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

DRIVER ANTHROPOMORPHIC TEST DEVICE … (CONTINUED)

Location	Metric	Description	SAE Filter Class	Max	Min
Femur	R Fz	Right Fz force (N)	600	329.8	-6768.3
	R Mx	Right Mx moment (Nm)	600	11.2	-216.0
	R My	Right My moment (Nm)	600	75.9	-29.3
	R Mres	Resultant of Mx and My only (not Mz) (Nm)	600	216.2	
	L Fz	Left Fz force (N)	600	306.8	-6546.9
	L Mx	Left Mx moment (Nm)	600	63.9	-207.1
	L My	Left My moment (Nm)	600	90.8	-48.0
	L Mres	Resultant of Mx and My only (not Mz) (Nm)	600	210.2	
Knee	R knee	Knee displacement (mm)	180	0.8	-3.3
	L knee	Knee displacement (mm)	180	8.0	-0.1
Tibia	RU Fz	Right upper axial force (N)	600	542.8	-1745.5
	RL Fz	Right lower axial force (N)	600	73.1	-4630.5
	RU My	Right upper bending moment (Nm)	600	30.1	238.5
	RL My	Right lower bending moment (Nm)	600	43.1	-210.5
	RU Index	Right upper tibia index	600	1.0	
	RL Index	Right lower tibia index	600	1.4	
	LU Fz	Left upper axial force (N)	600	423.6	981.2
	LL Fz	Left lower axial force (N)	600	604.1	-3143.0
	LU My	Left upper bending moment (Nm)	600	37.2	-97.8
	LL My	Left lower bending moment (Nm)	600	6.2	-10.8
	LU Index	Left upper tibia index	600	0.4	
	LL Index	Left lower tibia index	600	0.5	
Ankle	R ankle Fx	Ankle X Force (N)	600	72.8	-1007.0
	R ankle Fy	Ankle Y Force (N)	600	1580.8	-712.4
	R ankle Fz	Ankle Z Force (N)	600	71.3	-4300.7
	R ankle Mx	Ankle Mx Moment (Nm)	600	6.7	-147.3
	R ankle My	Ankle My Moment (Nm)	600	127.7	-102.1
	R inversion	Rotation about ankle X-axis, subtalar joint (deg)	180	8.7	-46.3
	R dors	Rotation about ankle Y-axis joint (deg)	180	36.7	-8.0
	L ankle Fx	Ankle X Force (N)	600	209.7	-1808.2
	L ankle Fy	Ankle Y Force (N)	600	315.6	-467.5
	L ankle Fz	Ankle Z Force (N)	600	563.0	-3270.1
	L ankle Mx	Ankle Mx Moment (Nm)	600	20.3	-54.2
	L ankle My	Ankle My Moment (Nm)	600	143.2	-12.1
	L inversion	Rotation about ankle X-axis, subtalar joint (deg)	180	20.9	-30.9
	L dors	Rotation about ankle Y-axis joint (deg)	180	37.2	-15.7

DATA SHEET NO. 4 … (CONTINUED)

OCCUPANT INJURY ASSESSMENT DATA

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

Description	Axis	Units	Max	Time (ms)	Min	Time (ms)
Driver Head CG	X	g	98.8	-52.1	71.5	0.0
Driver Head CG	Y	g	96.7	-6.9	76.2	0.0
Driver Head CG	Z	g	59.4	-1.3	139.4	0.0
Driver Top Head Array	X	g	99.0	-54.4	72.8	0.0
Driver Top Head Array	Y	g	96.7	-8.9	258.7	0.0
Driver Left Side Head Array	X	g	260.7	-49.5	72.9	0.0
Driver Left Side Head Array	Z	g	59.8	-5.3	99.3	0.0
Driver Rear Head Array	Y	g	96.4	-15.1	76.5	0.0
Driver Rear Head Array	Z	g	60.0	-9.4	103.1	0.0
Driver Head CG Redundant	X	g	98.8	-51.8	71.3	0.0
Driver Head CG Redundant	Y	g	96.7	-6.6	76.3	0.0
Driver Head CG Redundant	Z	g	59.5	-1.2	140.3	0.0
Driver Upper Neck Force	X	N	87.3	-307.5	157.7	0.0
Driver Upper Neck Force	Y	N	131.5	-124.8	277.4	0.0
Driver Upper Neck Force	Z	N	62.7	-527.3	100.3	0.0
Driver Upper Neck Moment	X	Nm	125.9	-18.7	72.9	0.0
Driver Upper Neck Moment	Y	Nm	132.0	-11.3	104.3	0.0
Driver Upper Neck Moment	Z	Nm	142.6	-29.5	101.2	0.0
Driver Lower Neck Force	X	N	89.5	-494.9	53.0	0.0
Driver Lower Neck Force	Y	N	23.1	-1309.6	94.6	0.0
Driver Lower Neck Force	Z	N	63.6	-1203.1	98.8	0.0
Driver Lower Neck Moment	X	Nm	130.1	-37.7	275.1	0.0
Driver Lower Neck Moment	Y	Nm	62.2	-43.7	88.2	0.0
Driver Lower Neck Moment	Z	Nm	71.3	-28.5	106.2	0.0
Driver Front Neck Spring Force		N	99.3	-43.0	74.1	0.0
Driver Rear Neck Spring Force		N	134.2	-53.4	56.8	0.0
Driver Occipital Condyle Rotation		°	132.2	-6.4	106.0	0.0
Driver Upper Spine T1	X	g	117.3	-48.1	82.3	0.0
Driver Upper Spine T1	Y	g	89.8	-6.6	134.4	0.0
Driver Upper Spine T1	Z	g				[5]
Driver Thorax	X	g	115.1	-37.3	76.8	0.0
Driver Thorax	Y	g	92.9	-6.0	70.8	0.0
Driver Thorax	Z	g	56.8	-13.3	77.9	0.0

[5] – Channel failed, no data

DATA SHEET NO. 4 … (CONTINUED)

OCCUPANT INJURY ASSESSMENT DATA

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

Description	Axis	Units	Max	Time (ms)	Min	Time (ms)
Driver Lower Spine T12	X	g	7.6	111.0	-40.6	65.2
Driver Lower Spine T12	Y	g	34.5	94.4	-12.9	64.0
Driver Lower Spine T12	Z	g	4.9	91.5	-19.8	71.4
Driver Upper Left CRUX Base Rotation		°	145.1	150.4	137.2	269.6
Driver Upper Left CRUX Middle Rotation		°	202.8	242.7	177.3	114.4
Driver Upper Left CRUX Elbow Rotation		°	165.8	56.5	145.5	314.4
Driver Lower Left CRUX Base Rotation		°	160.4	45.0	155.0	110.2
Driver Lower Left CRUX Middle Rotation		°	143.4	362.3	136.0	103.5
Driver Lower Left CRUX Elbow Rotation		°	138.8	102.5	114.2	48.9
Driver Upper Right CRUX Base Rotation		°	178.4	77.4	166.9	113.8
Driver Upper Right CRUX Middle Rotation		°	131.0	73.0	108.0	104.8
Driver Upper Right CRUX Elbow Rotation		°	165.6	4.3	128.8	73.2
Driver Lower Right CRUX Base Rotation		°	185.2	120.0	177.9	258.7
Driver Lower Right CRUX Middle Rotation		°	117.1	151.5	103.6	64.6 [6]
Driver Lower Right CRUX Elbow Rotation		°	286.4	64.1	256.9	260.1
Driver Upper Abdomen Deflection		mm	13.4	67.8	-3.0	98.2
Driver Left DGSP Deflection	X	mm	69.3	114.6	36.5	11.0
Driver Left DGSP Rotation	Y	mm	238.4	115.0	230.8	47.0
Driver Left DGSP Rotation	Z	mm	155.1	38.8	148.7	70.5
Driver Right DGSP Deflection	X	mm	66.8	68.6	27.7	10.3
Driver Right DGSP Rotation	Y	°	155.8	399.9	148.8	69.1
Driver Right DGSP Rotation	Z	°	166.7	44.6	159.7	69.8
Driver Thoracic Spine Force	X	N	127.3	127.7	-1386.3	79.8
Driver Thoracic Spine Force	Y	N	1696.0	92.9	-399.0	67.0
Driver Upper Thoracic Spine Force	Z	N	917.3	60.0	-2523.1	94.5
Driver Upper Thoracic Spine Moment X	X	Nm	67.4	157.5	-171.6	92.4
Driver Upper Thoracic Spine Moment Y	Y	Nm	124.6	96.0	-114.2	63.4
Driver Pelvis	X	g	4.2	119.7	-57.8	50.9
Driver Pelvis	Y	g	33.7	78.7	-23.5	60.1
Driver Pelvis	Z	g	8.9	53.8	-16.0	79.5
Driver Left Acetabulum Force	X	N	335.5	37.2	-2778.0	51.5
Driver Left Acetabulum Force	Y	N	1845.0	73.1	-435.8	48.1
Driver Left Acetabulum Force	Z	N	2342.9	74.9	-118.1	170.1

[6] – Questionable data

DATA SHEET NO. 4 … (CONTINUED)

OCCUPANT INJURY ASSESSMENT DATA

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

Description	Axis	Units	Max	Time (ms)	Min	Time (ms)
Driver Right Acetabulum Force	X	N	379.5	82.7	-1863.4	59.9
Driver Right Acetabulum Force	Y	N	3418.8	62.9	-303.0	98.5
Driver Right Acetabulum Force	Z	N	1408.2	73.1	-333.2	48.6
Driver Left Femur Force	X	N	919.0	65.6	-110.9	132.3
Driver Left Femur Force	Y	N	994.4	74.1	-168.5	122.6
Driver Left Femur Force	Z	N	306.7	35.7	-6546.9	50.8
Driver Left Femur Moment	X	Nm	63.9	105.9	-207.1	60.2
Driver Left Femur Moment	Y	Nm	90.8	46.5	-48.0	86.2
Driver Left Femur Moment	Z	Nm	34.4	50.1	-21.7	210.2
Driver Right Femur Force	X	N	612.7	71.5	-151.9	103.8
Driver Right Femur Force	Y	N	929.1	63.2	-588.3	51.7
Driver Right Femur Force	Z	N	329.8	34.7	-6768.3	59.0
Driver Right Femur Moment	X	Nm	11.2	133.9	-216.0	58.4
Driver Right Femur Moment	Y	Nm	75.9	70.7	-29.3	60.8
Driver Right Femur Moment	Z	Nm	50.0	48.6	-12.8	54.2
Driver Left Knee Deflection		mm	0.8	48.9	-3.3	75.4
Driver Left Tibia	X	g	30.4	77.7	-89.8	46.1
Driver Left Tibia	Y	g	63.4	50.1	-15.5	44.5
Driver Left Foot	X	g	18.2	64.8	-68.2	44.8 [7]
Driver Left Foot	Y	g	82.3	47.4	-21.6	125.7
Driver Left Foot	Z	g	28.6	110.4	-108.2	43.5
Driver Left Ankle Rotation	X	°	20.8	110.1	-30.8	51.7
Driver Left Ankle Rotation	Y	°	37.1	55.3	-3.5	315.8
Driver Left Ankle Rotation	Z	°	19.3	65.2	-6.7	105.3
Driver Left Upper Tibia Force	X	N	411.4	45.9	-328.2	82.1
Driver Left Upper Tibia Force	Y	N	234.3	106.0	-570.6	50.0
Driver Left Upper Tibia Force	Z	N	423.6	75.2	-981.2	46.0
Driver Left Upper Tibia Moment	X	Nm	18.9	64.5	-36.4	74.6
Driver Left Upper Tibia Moment	Y	Nm	37.2	111.3	-97.8	49.2
Driver Left Lower Tibia Force	X	N	103.8	111.2	-1355.7	49.0
Driver Left Lower Tibia Force	Y	N	131.4	49.4	-394.3	54.9
Driver Left Lower Tibia Force	Z	N	345.3	360.7	-3143.0	46.4
Driver Left Lower Tibia Moment	X	Nm	16.7	109.7	-74.7	51.4
Driver Left Lower Tibia Moment	Y	Nm	4.4	152.8	-9.6	127.9

[7] – Channel failed at 69.3 ms

DATA SHEET NO. 4 … (CONTINUED)

OCCUPANT INJURY ASSESSMENT DATA

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

Description	Axis	Units	Max	Time (ms)	Min	Time (ms)
Driver Right Knee Deflection		mm	0.1	29.5	-8.0	64.0
Driver Right Tibia	X	g	32.9	48.7	-176.2	44.9
Driver Right Tibia	Y	g	106.8	50.0	-34.7	82.8
Driver Right Foot	X	g	72.8	53.8	-384.1	41.3
Driver Right Foot	Y	g	208.7	41.3	-58.8	45.4 [8]
Driver Right Foot	Z	g	153.7	47.1	-218.5	44.4
Driver Right Ankle Rotation	X	°	1.5	167.9	-46.2	53.1
Driver Right Ankle Rotation	Y	°	36.7	57.9	-7.9	28.5
Driver Right Ankle Rotation	Z	°	20.0	59.8	-2.3	263.9
Driver Right Upper Tibia Force	X	N	1454.2	44.6	-552.3	51.9
Driver Right Upper Tibia Force	Y	N	433.1	83.1	-1705.7	50.6
Driver Right Upper Tibia Force	Z	N	542.8	64.9	-1745.5	49.0
Driver Right Upper Tibia Moment	X	Nm	68.0	83.3	-228.4	51.0
Driver Right Upper Tibia Moment	Y	Nm	30.1	82.8	-238.5	45.1
Driver Right Lower Tibia Force	X	N	64.2	199.0	-1872.4	45.3
Driver Right Lower Tibia Force	Y	N	892.0	50.7	-548.2	83.6
Driver Right Lower Tibia Force	Z	N	47.1	214.6	-4630.5	48.8
Driver Right Lower Tibia Moment	X	Nm	49.1	84.0	-240.3	49.8
Driver Right Lower Tibia Moment	Y	Nm	43.1	52.7	-210.4	44.7
Driver Lap Belt Force		N	2004.2	48.5	-0.6	0.0
Driver Shoulder Belt Force		N	4868.8	63.7	-22.2	154.3
LR Passenger Head CG	X	g	17.6	227.8	-58.2	108.1
LR Passenger Head CG	Y	g	14.0	110.8	-14.9	226.4
LR Passenger Head CG	Z	g	65.6	85.3	-3.9	40.1
LR Passenger Top Head Array	X	g	21.0	234.0	-85.9	108.3
LR Passenger Top Head Array	Y	g	16.3	103.4	-26.0	225.4
LR Passenger Left Side Head Array	X	g	26.1	226.6	-56.7	108.8
LR Passenger Left Side Head Array	Z	g	65.6	84.9	-2.0	36.6
LR Passenger Front Head Array	Y	g	17.7	104.6	-9.9	234.1
LR Passenger Front Head Array	Z	g	69.2	85.5	-19.8	103.8
LR Passenger Head CG Redundant	X	g	17.6	227.0	-58.0	108.0
LR Passenger Head CG Redundant	Y	g	14.1	110.8	-14.7	225.6
LR Passenger Head CG Redundant	Z	g	65.9	84.8	-2.2	37.2

[8] – Data channel failed at 61.4 ms

DATA SHEET NO. 4 … (CONTINUED)

OCCUPANT INJURY ASSESSMENT DATA

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

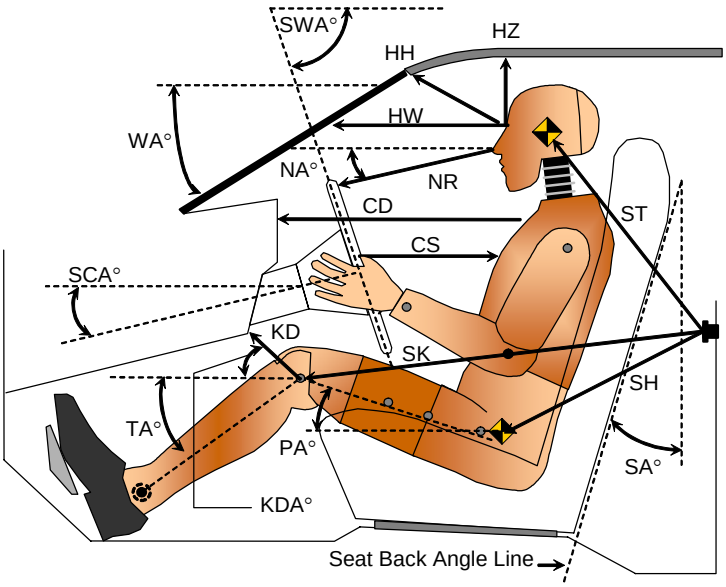
Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

Description	Axis	Units	Max	Time (ms)	Min	Time (ms)
LR Passenger Upper Neck Force X	X	N	562.8	59.1	-1658.1	107.4
LR Passenger Upper Neck Force Y	Y	N	423.9	109.7	-123.8	181.6
LR Passenger Upper Neck Force Z	Z	N	2143.9	84.8	-1262.6	59.1
LR Passenger Upper Neck Moment X	X	Nm	16.7	95.4	-8.2	236.1
LR Passenger Upper Neck Moment Y	Y	Nm	35.1	100.7	-38.1	237.3
LR Passenger Upper Neck Moment Z	Z	Nm	10.0	102.8	-12.6	244.7
LR Passenger Lower Neck Force X	X	N	198.4	199.7	-1762.4	88.1
LR Passenger Lower Neck Force Y	Y	N	329.2	119.5	-245.6	95.3
LR Passenger Lower Neck Force Z	Z	N	2016.7	84.2	-1281.1	108.0
LR Passenger Lower Neck Moment X	X	Nm	78.7	111.8	-22.4	399.9
LR Passenger Lower Neck Moment Y	Y	Nm	387.6	108.3	-50.2	175.5
LR Passenger Lower Neck Moment Z	Z	Nm	28.5	134.1	-23.1	104.7
LR Passenger Chest X Primary	X	g	5.3	84.4	-56.5	75.7
LR Passenger Chest Y Primary	Y	g	23.7	83.3	-2.8	397.8
LR Passenger Chest Z Primary	Z	g	3.9	182.2	-10.8	95.0
LR Passenger Chest X Redundant	X	g	5.4	84.4	-56.0	75.8
LR Passenger Chest Y Redundant	Y	g	22.9	83.3	-2.7	398.4
LR Passenger Chest Z Redundant	Z	g	4.1	182.2	-10.6	95.1
LR Passenger Chest Deflection	X	mm	0.0	20.8	-28.0	87.2
LR Passenger Pelvis X Primary	X	g	6.6	128.4	-41.7	70.7
LR Passenger Pelvis Y Primary	Y	g	19.4	86.0	-2.5	43.8
LR Passenger Pelvis Z Primary	Z	g	4.2	118.1	-21.2	74.0
LR Passenger Left Femur Force Z	Z	N	998.0	64.1	-196.2	102.6
LR Passenger Right Femur Force Z	Z	N	1135.4	64.4	-174.0	131.3
LR Passenger Lap Belt Force		N	3769.0	72.1	-100.5	144.6
LR Passenger Shoulder Belt Force		N	5704.6	82.2	-13.0	170.4

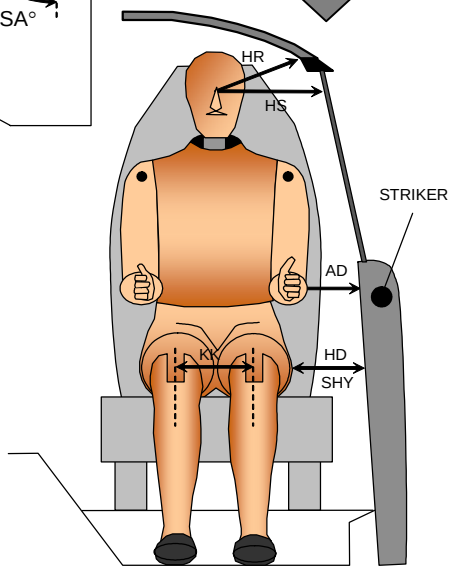
DATA SHEET NO. 5

DUMMY POSITIONING DATA

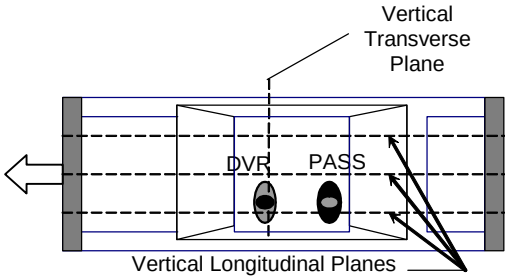
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



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. 5 … (CONTINUED)

DUMMY POSITIONING DATA

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

TEST DUMMY POSITION MEASUREMENTS

Code	Measurement Description	Driver		Left Rear Passenger	
		Length (mm)	Angle (°)	Length (mm)	Angle (°)
WA	Windshield Angle		25.2		
SWA	Steering Wheel Angle		69.4		
SCA	Steering Column Angle		20.6		
SA	Seat Back Angle		18.5		Fixed
HZ	Head to Roof (Z)	192	88.8	299	89.3
HH	Head to Header	332	22.3		
HR	Head to Side Header	208	27.9	280	18.7
NR	Nose to Rim	427	15.6		
CD	Chest to Dash	564	11.8		
CS	Chest to Steering Hub	347	0.8		
RA	Rim to Abdomen	203	0.5		
KDL	Left Knee to Dash / Seat Back	419	63.1	298	4.7
KDR	Right Knee to Dash / Seat Back	113	53.2	299	6.4
PA	Pelvis Angle		26		26
TA	Tibia Angle		46.7		55.6
KK	Knee to Knee	181		142	
SK	Striker to Knee	591	4.7	650	18.3
ST	Striker to Head	561	86.5	270	73.9
SH	Striker to H-Point	232	30.6	410	44.5
SHY	Striker to H-Point (Y)	232		279	
HS	Head to Side Window	317		290	
HD	H-Point to Door	94		203	
AD	Arm to Door	42		99	

DATA SHEET NO. 5 … (CONTINUED)

DUMMY POSITIONING DATA

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

TEST DUMMY POINT LOCATIONS

Description	Driver			Left Rear Passenger		
	X	Y	Z	X	Y	Z
Head CG	-2506	448	1187	-3490	437	1080
Bridge of Nose	-2407	369	1175	-3394	360	1084
Tip of Nose	-2403	370	1137	-3367	358	1053
Chin	-2403	374	1057	-3379	355	977
Hip Point	-2340	568	509	-3272	98	533
Left Knee	-1951	572	676	-2764	491	342
Right Knee	-1918	280	654	-2949	344	608
Left Ankle	-1661	582	371	-2764	491	342
Right Ankle	-1619	258	362	-2914	336	567
Front Outboard Seat Anchor Bolt	-2096	561	267			
Seat Back Pivot Point	-2440	633	449			
Center of Striker	-2539	800	631	-3564	792	822

Reference Planes: X – Front of Vehicle Centerline, X+ forward

Y – Vehicle Centerline, Y+ left

Z – Ground, Z+ up

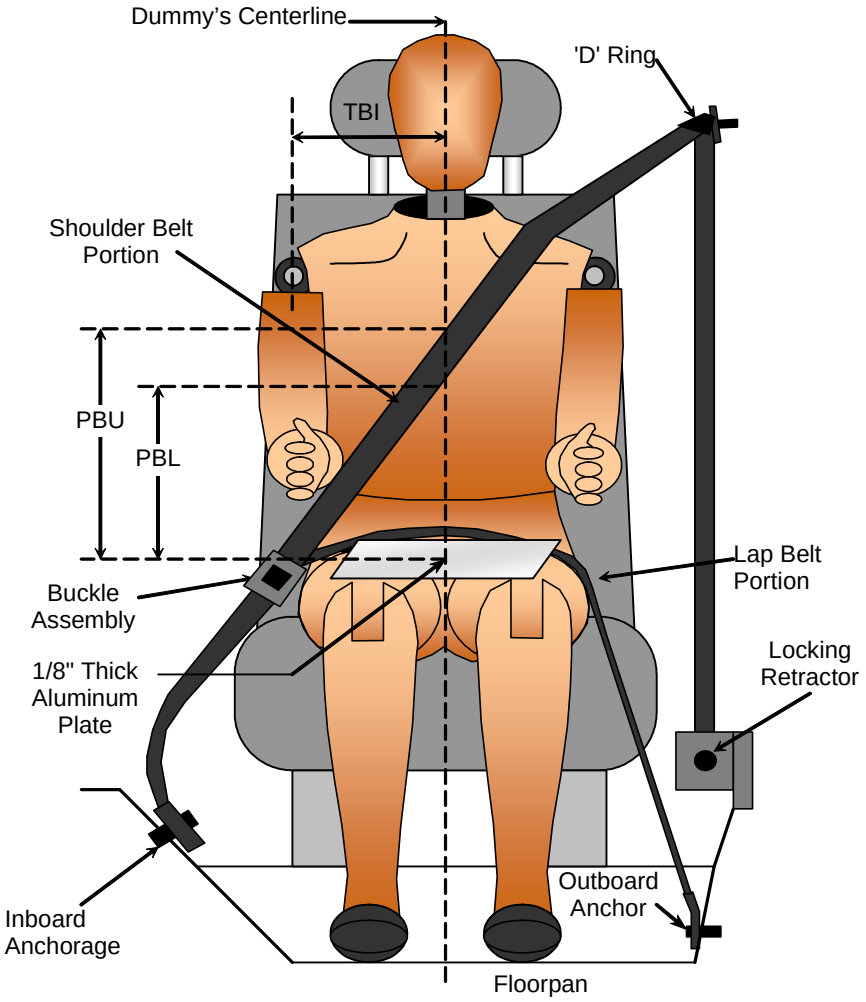
All measurements in millimeters

DATA SHEET NO. 6

SEAT BELT POSITIONING DATA

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09



SEAT BELT POSITIONING MEASUREMENTS

Code	Measured Parameter	Units	Driver	Left Rear Passenger
TBI	Dummy C/L to Lap/Shoulder Belt Intersect	mm	195	140
PBU	Top Surface of Reference to Belt Upper	mm	330	305
PBL	Top Surface of Reference to Belt Lower	mm	245	225

DATA SHEET NO. 7

VEHICLE ACCELEROMETER LOCATIONS

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

Accelerometer Description	Axes	Location		
		X	Y	Z
Left Rear Sill	X,Y	-2849	730	330
Right Rear Sill	X,Y	-2849	-730	330
Vehicle CG	X,Y,Z	-2649	0	280
Engine Top	X	-669	-120	740
Engine Bottom	X	-749	0	280
Left Front Brake Caliper	X	-1229	245	710
Right Front Brake Caliper	X	-1229	-245	710
Instrument Panel	X	-1649	-200	1010
Driver Seat Track	X	-2182	570	240
Accelerator Pedal	X,Y,Z	-1349	170	380
Brake Pedal	X,Y,Z	-1519	320	490
Foot Rest	X,Y,Z	-1479	600	560

All measurements are made relative to the front of vehicle centerline at ground level.

All measurements in millimeters

DATA SHEET NO. 8

VEHICLE ACCELEROMETER DATA SUMMARY

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

No.	Accelerometer Description	Axis	Units	Max	Time (ms)	Min	Time (ms)
1	Left Rear Sill	X	g	41.6	40.8	-4.0	120.4
2		Y	g	33.1	44.2	-7.0	952.0
4	Right Rear Sill	X	g	43.4	39.7	-4.4	121.0
5		Y	g	16.2	55.5	-7.0	8.1
7	Vehicle CG	X	g	55.0	46.2	-9.3	101.0
8		Y	g	23.5	43.2	-7.0	951.7
9		Z	g	37.7	109.1	-26.4	53.9
10	Engine Top	X	g	467.3	31.3	-169.2	48.9
11	Engine Bottom	X	g	133.7	34.9	-30.0	44.0
12	Left Front Brake Caliper	X	g	161.1	21.6	-155.7	45.4
13	Right Front Brake Caliper	X	g	0.0	0.0	0.0	0.0
14	Instrument Panel	X	g	52.3	51.4	-13.5	107.3
15	Driver Seat Track	X	g	34.6	42.9	-7.2	106.6
16	Accelerator Pedal	X	g	175.0	39.1	-71.7	50.6
17		Y	g	61.8	49.9	-59.6	40.3
18		Z	g	83.0	50.3	-156.6	39.7
19	Brake Pedal	X	g	120.8	34.0	-122.9	57.3
20		Y	g	98.4	51.3	-83.9	41.2
21		Z	g	284.9	51.7	-250.9	60.1
22	Foot Rest	X	g	64.7	43.5	-29.9	115.1
23		Y	g	149.2	43.1	-18.9	7.0
24		Z	g	45.1	45.9	-21.2	61.0

DATA SHEET NO. 9

MOVING DEFORMABLE BARRIER ACCELEROMETER LOCATIONS AND DATA SUMMARY

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

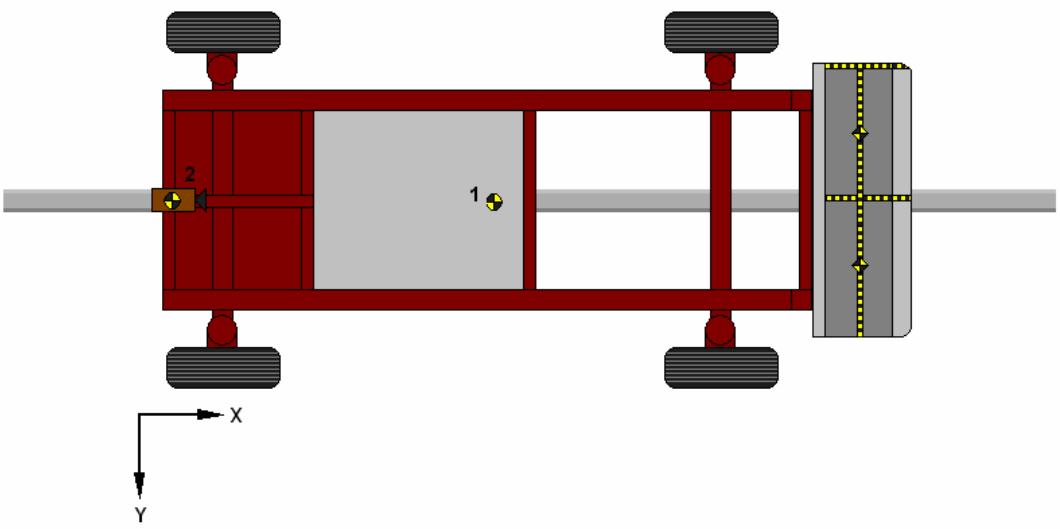
MDB ACCELEROMETER LOCATIONS

Description	Location (mm)		
	X	Y	Z
MDB CG	-1195	0	-430
MDB Rear Centerline	-2920	0	-840

Reference Planes: X – MDB Front Axle

Y – MDB Centerline

Z – Ground Plane



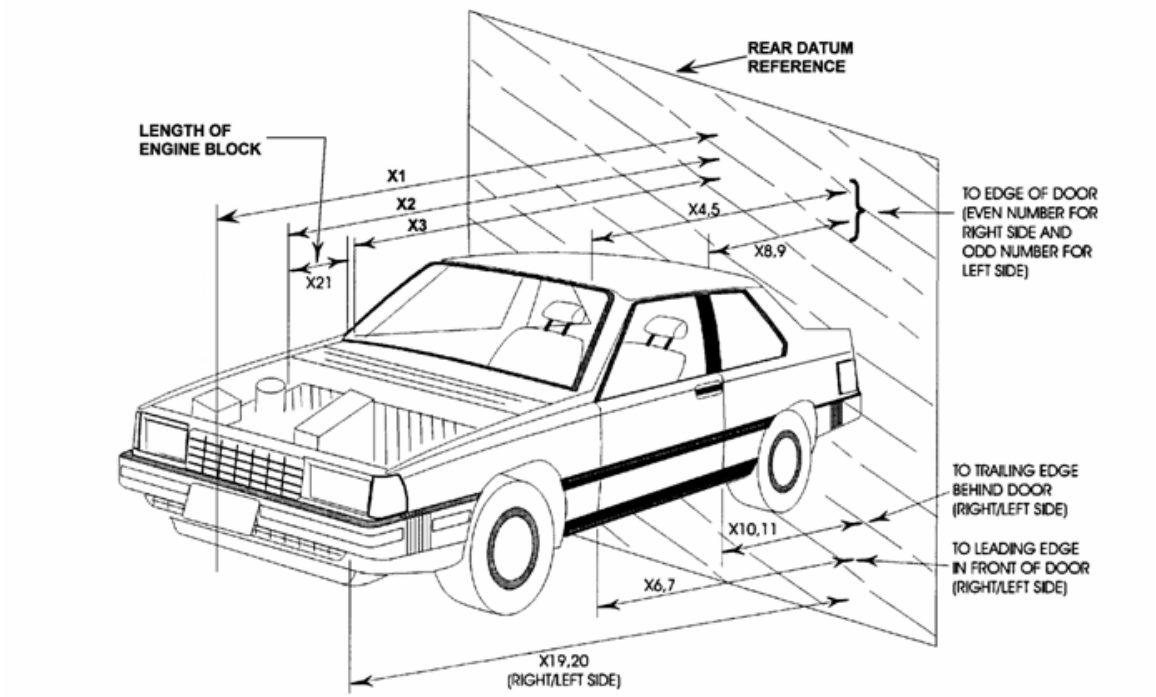
No.	Accelerometer Description	Axis	Units	Max	Time (ms)	Min	Time (ms)
1	MDB CG	X	g	5.1	119.4	-84.5	32.4
2		Y	g	51.0	40.8	-35.9	51.6
3		Z	g	37.3	115.8	-52.6	104.8
4	MDB Rear Centerline	X	g	24.5	65.4	-81.0	32.6
5		Y	g	47.6	56.8	-33.5	81.0
6		Z	g	0.0	0.0	0.0	0.0 [9]

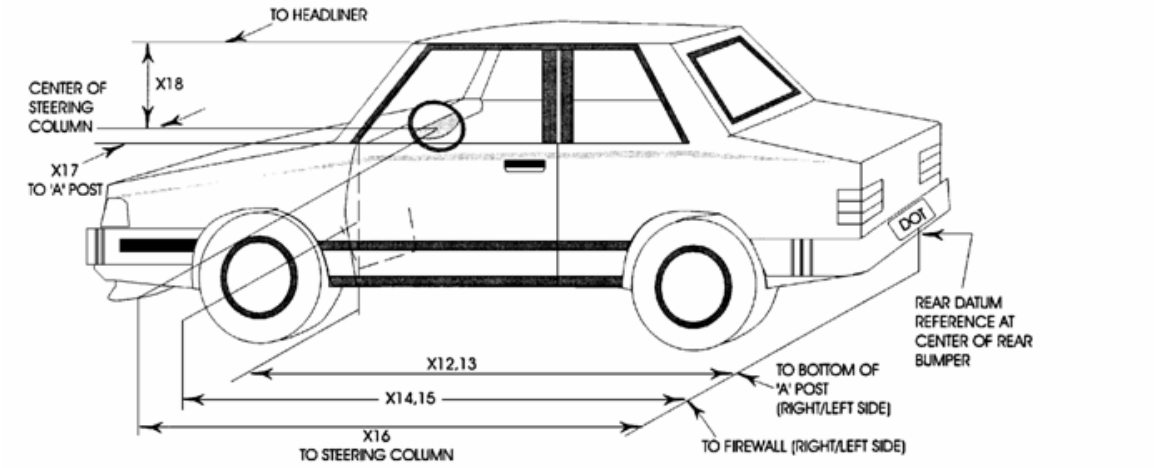
[9] – Channel failed, no data.

DATA SHEET NO. 10

TEST VEHICLE MEASURMENTS

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09





DATA SHEET NO. 10 … (CONTINUED)

TEST VEHICLE MEASURMENTS

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

VEHICLE MEASUREMENT TABLE

No.	Description	Pre-Test	Post-Test	Difference	
1	Total Vehicle Length at Centerline	5023	4488	-535	
2	RSOV to Front of Engine	4405	4136	-269	
3	RSOV to Firewall Centerline	3908	3705	-203	
4	RSOV to Leading Edge of Right Door	3510	3508	-2	
5	RSOV to Leading Edge of Left Door	3512	3433	-79	
6	RSOV to Lower Leading Edge of Right Door	3418	3407	-11	
7	RSOV to Lower Leading Edge of Left Door	3422	3355	-67	
8	RSOV to Upper Leading Edge of Right Door	3453	3466	13	
9	RSOV to Upper Leading Edge of Left Door	3452	3383	-69	
10	RSOV to Lower Trailing Edge of Right Door	1667	2344	677	
11	RSOV to Lower Trailing Edge of Left Door	1668	2323	655	
12	RSOV to Bottom of Right A-Pillar	3411	3396	-15	
13	RSOV to Bottom of Left A-Pillar	3422	3337	-85	
14	RSOV to Firewall on Right Side	3871	3707	-164	10
15	RSOV to Firewall on Left Side	3855	3531	-324	10
16	RSOV to Steering Column	2983	2859	-124	
17	Center of Steering Column to Left A-Pillar	443	430	-13	
18	Center of Steering Column to Headliner	411	367	-44	
19	RSOV to Right Side of Front Bumper	4275	4254	-21	
20	RSOV to Left Side of Front Bumper	4285	3898	-387	
21	Engine Block Length	440	510	70	
RD	RSOV to Right Side of Dash	3108	3100	-8	
CD	RSOV to Center of Dash	3149	3079	-70	
LD	RSOV to Left Side of Dash	3116	2986	-130	

RSOV = Rear Surface of Vehicle

[10] – Pre-Test measurement point unavailable during Post-Test measurements. Points approximately equal to the original points were used for Post-Test measurements and Difference values.

All measurements in millimeters

DATA SHEET NO. 10 … (CONTINUED)

TEST VEHICLE MEASUREMENTS

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

VEHICLE STRUCTURAL MEASUREMENT TABLE

No.	Description	Pre-Test	Post-Test	Difference	
1	Total Vehicle Length	5023	4871	-152	
2	Total Vehicle Width	1860	1861	1	
3	Bumper Top Height	589	485	-104	
4	Bumper Bottom Height	417	370	-47	
5	Longitudinal Member Top Height	530	535	5	
6	Longitudinal Member Bottom Height	390	418	28	
7	Distance Between Longitudinal Members	965	975	10	
8	Longitudinal Member Width	50	75	25	
9	Engine Top Height	895	799	-96	
10	Engine Bottom Height	190	150	-40	
11	Engine and Gearbox Width	835	795	-40	
12	Front Bumper to Engine Distance	618	352	-266	[11]
13	Front Shock Absorber Fixing Height	881	884	3	
14	Hood Leading Edge Height	735	762	27	
15	Front Shock Absorber Fixing Width	1121	1014	-107	
16	Front Bumper to Front Axle Distance	1049	785	-264	[11]
17	Front Axle to A-Pillar Distance	552	365	-187	
18	A-Pillar to B-Pillar Distance	1034	979	-55	
19	B-Pillar to Rear Axle Distance	1171	1166	-5	
20	B-Pillar to C-Pillar Distance	777	771	-6	
21	Roof Sill Bottom Height	1330	1323	-7	
22	Roof Sill Top Height	1404	1396	-8	
23	Floor Sill Bottom Height	263	238	-25	
24	Floor Sill Top Height	355	326	-29	

[11] – Pre-Test front bumper point unavailable during Post-Test measurements. A point approximately equal to the original point, on the foam of the bumper, beneath the bumper cover, was used for Post-Test measurement and Difference values. The point was taken at the centerline of the vehicle.

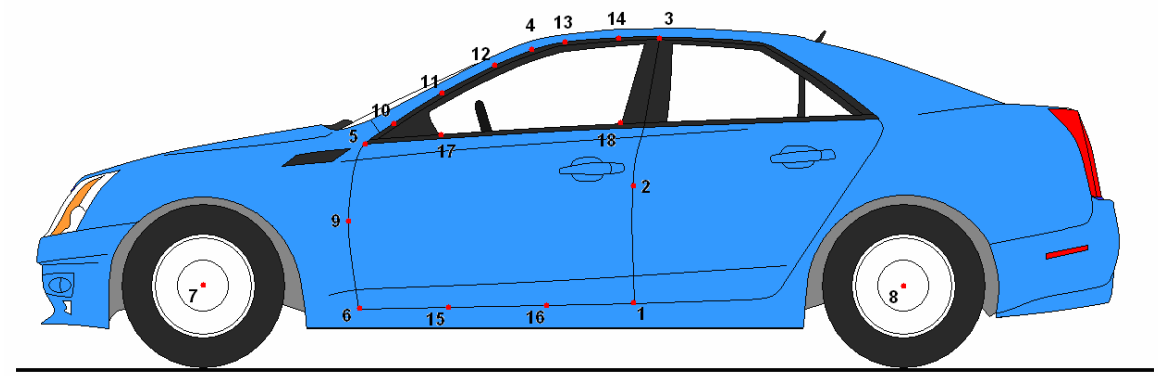
All measurements in millimeters

DATA SHEET NO. 10 … (CONTINUED)

TEST VEHICLE MEASUREMENTS

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09



LEFT FRONT DOOR JAM MEASUREMENTS

Point	Pre-Test			Post-Test			Difference		
	X	Y	Z	X	Y	Z	X	Y	Z
1	2529	787	325	2499	847	308	-30	60	-17
2	2454	772	812	2447	796	796	-7	24	-16
3	2299	565	1329	2322	544	1300	23	-21	-29
4	2856	599	1258	2860	609	1318	4	10	60
5	3407	759	892	3294	768	817	-113	9	-75
6	3350	785	310	3275	805	223	-75	20	-87
7	3974	867	306	3703	811	282	-271	-56	-24
8	1217	872	323	1193	909	331	-24	37	8
9	3404	769	624	3280	789	548	-124	20	-76
10	3263	711	1049	3188	718	1000	-75	7	-49
11	3119	673	1130	3076	681	1118	-43	8	-12
12	3014	643	1186	2991	651	1204	-23	8	18
13	2699	572	1300	2719	573	1346	20	1	46
14	2423	561	1327	2445	557	1311	22	-4	-16
15	3110	786	287	3067	857	213	-43	71	-74
16	2835	786	284	2804	845	243	-31	59	-41
17	3228	804	932	3306	938	795	78	134	-137
18	2458	831	936	2561	986	965	103	155	29

NOTE: Points 1 through 6 and 9 through16 are taken in the door frame area. Points 17 and 18 are taken on the outer door surface.

Reference Planes: X – Rear of Vehicle Centerline, X+ forward
Y – Vehicle Centerline, Y+ left
Z – Ground, Z+ up

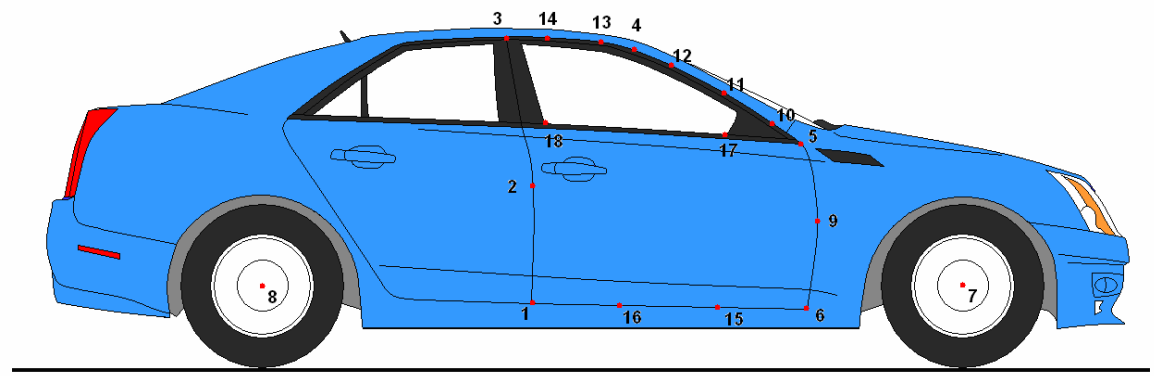
All measurements in millimeters

DATA SHEET NO. 10 … (CONTINUED)

TEST VEHICLE MEASUREMENTS

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09



RIGHT FRONT DOOR JAM MEASUREMENTS

Point	Pre-Test			Post-Test			Difference		
	X	Y	Z	X	Y	Z	X	Y	Z
1	2517	-806	331	2516	-741	253	-1	65	-78
2	2453	-791	761	2472	-751	687	19	40	-74
3	2300	-583	1324	2341	-574	1267	41	9	-57
4	2867	-620	1248	2905	-592	1163	38	28	-85
5	3407	-778	866	3410	-761	741	3	17	-125
6	3361	-791	318	3348	-794	194	-13	-3	-124
7	3970	-878	305	3956	-868	251	-14	10	-54
8	1213	-881	319	1221	-843	311	8	38	-8
9	3403	-782	651	3399	-777	525	-4	5	-126
10	3306	-742	1014	3320	-710	892	14	32	-122
11	3179	-707	1090	3198	-679	977	19	28	-113
12	3042	-670	1167	3071	-640	1066	29	30	-101
13	2699	-591	1294	2738	-571	1218	39	20	-76
14	2522	-579	1316	2562	-565	1248	40	14	-68
15	3141	-799	283	3126	-782	172	-15	17	-111
16	2817	-801	280	2804	-752	188	-13	49	-92
17	3220	-820	925	3237	-808	805	17	12	-120
18	2456	-846	931	2474	-808	848	18	38	-83

NOTE: Points 1 through 6 and 9 through16 are taken in the door frame area. Points 17 and 18 are taken on the outer door surface.

Reference Planes: X – Rear of Vehicle Centerline, X+ forward
Y – Vehicle Centerline, Y+ left
Z – Ground, Z+ up

All measurements in millimeters

DATA SHEET NO. 11

TEST VEHICLE STRUCTURAL CRUSH MEASUREMENTS

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

Description	Pre-Test			Post-Test			Difference			
	X	Y	Z	X	Y	Z	X	Y	Z	
Lower Bumper Beam 1	4829	696	428	4053	532	549	-776	-164	121	12
Lower Bumper Beam 2	4955	417	420	4213	274	458	-742	-143	38	12
Lower Bumper Beam 3	5005	136	434	4365	98	418	-640	-38	-16	12
Lower Bumper Beam 4	5005	-145	434	4527	16	485	-478	161	51	12
Lower Bumper Beam 5	4957	-424	416	4736	-174	465	-221	250	49	12
Lower Bumper Beam 6	4829	-704	425	4912	-432	433	83	272	8	12
Upper Bumper Beam 1	4830	695	570	4015	580	640	-815	-115	70	12
Upper Bumper Beam 2	4956	414	571	4249	308	620	-707	-106	49	12
Upper Bumper Beam 3	5007	135	567	4429	106	549	-578	-29	-18	12
Upper Bumper Beam 4	5008	-145	566	4491	-13	607	-517	132	41	12
Upper Bumper Beam 5	4959	-425	568	4699	-208	607	-260	217	39	12
Upper Bumper Beam 6	4832	-704	569	4863	-472	583	31	232	14	12
Upper Radiator Support 1	4576	695	723	3950	626	713	-626	-69	-10	
Upper Radiator Support 2	4674	416	748	4061	293	866	-613	-123	118	
Upper Radiator Support 3	4706	146	750	4205	68	815	-501	-78	65	
Upper Radiator Support 4	4709	-145	752	4387	-155	802	-322	-10	50	
Upper Radiator Support 5	4680	-425	749	4576	-356	809	-104	69	60	
Upper Radiator Support 6	4575	-705	727	4529	-614	671	-46	91	-56	
Front of Hood 1	4577	696	780	4004	615	871	-573	-81	91	
Front of Hood 2	4870	414	674	4140	345	678	-730	-69	4	
Front of Hood 3	4872	135	732	4253	96	739	-619	-39	7	
Front of Hood 4	4872	-146	729	4437	-110	784	-435	36	55	
Front of Hood 5	4872	-426	678	4632	-311	835	-240	115	157	
Front of Hood 6	4581	-705	784	4488	-624	1075	-93	81	291	
Lower Radiator Support Lip 1	4729	695	572	3987	550	646	-742	-145	74	
Lower Radiator Support Lip 2	4817	416	591	4171	342	642	-646	-74	51	
Lower Radiator Support Lip 3	4814	137	595	4324	140	640	-490	3	45	
Lower Radiator Support Lip 4	4811	-145	594	4485	-88	627	-326	57	33	
Lower Radiator Support Lip 5	4819	-426	590	4676	-294	625	-143	132	35	
Lower Radiator Support Lip 6	4732	-705	576	4677	-560	533	-55	145	-43	

[12] – Original measurement point unavailable due to component separating from vehicle during impact. Component was held in place for an approximation for Post-Test measurements.

All measurements in millimeters

DATA SHEET NO. 11 … (CONTINUED)

TEST VEHICLE STRUCTURAL CRUSH MEASUREMENTS

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09

Notes: Upper and Lower Bumper Beam measurement points were taken on the foam material of the bumper.

See Figures 303 through 310 of Appendix A for photographs of the crush measurements.

Reference Planes: X – Rear of Vehicle Centerline, X+ forward

Y – Vehicle Centerline, Y+ left

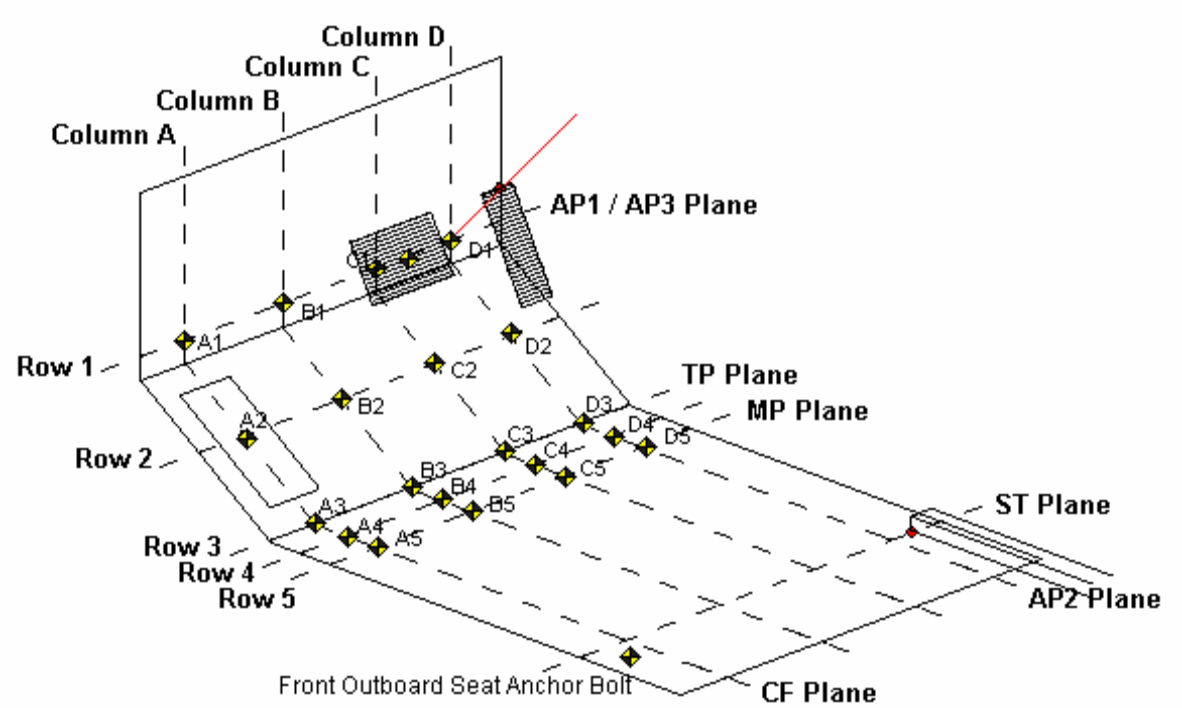
Z – Ground, Z+ up

DATA SHEET NO. 12

VEHICLE INTRUSION MEASUREMENTS

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09

STANDARD NHTSA FLOORPAN MEASUREMENTS



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. 12 … (CONTINUED)

VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

DRIVER FLOORPAN

Point	Pre-Test			Post-Test			Difference		
	X	Y	Z	X	Y	X	X	Y	Z
A1	3562	567	379	3408	564	321	-154	-3	-58
A2	3531	569	321	3393	569	257	-138	0	-64
A3	3498	570	260	3386	575	189	-112	5	-71
A4	3393	570	224	3304	593	119	-89	23	-105
A5	3277	565	217	3207	593	132	-70	28	-85
B1	3633	444	326	3470	429	284	-163	-15	-42
B2	3574	442	283	3435	440	224	-139	-2	-59
B3	3518	442	240	3397	448	166	-121	6	-74
B4	3399	441	222	3291	468	108	-108	27	-114
B5	3278	447	217	3190	485	85	-88	38	-132
C1	3630	324	329	3459	310	274	-171	-14	-55
C2	3575	322	287	3421	319	218	-154	-3	-69
C3	3524	322	236	3389	329	153	-135	7	-83
C4	3405	323	219	3279	348	109	-126	25	-110
C5	3280	322	215	3179	375	94	-101	53	-121
D1	3634	150	330	3446	143	256	-188	-7	-74
D2	3579	149	282	3413	150	193	-166	1	-89
D3	3527	148	243	3372	156	145	-155	8	-98
D4	3409	153	224	3263	185	129	-146	32	-95
D5	3289	164	227	3180	241	161	-109	77	-66
Left IP	3184	518	737	3091	538	734	-93	20	-3
Right IP	3185	211	726	3119	237	675	-66	26	-51
Steering Column	2983	358	888	2824	391	896	-159	33	8
Outboard Seat Bolt	2927	557	267	2901	625	218	-26	68	-49
Brake Pedal	3488	316	431	3215	413	424	-273	97	-7

Reference Planes: X – Rear of Vehicle at Centerline, X+ forward

Y – Vehicle Centerline, Y+ left

Z – Ground, Z+ up

All measurements in millimeters

DATA SHEET NO. 12 … (CONTINUED)

VEHICLE INTRUSION MEASUREMENTS

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09

ADDITIONAL FLOORPAN MEASUREMENT POINTS (NON-STANDARD)

PRE-TEST

POST-TEST

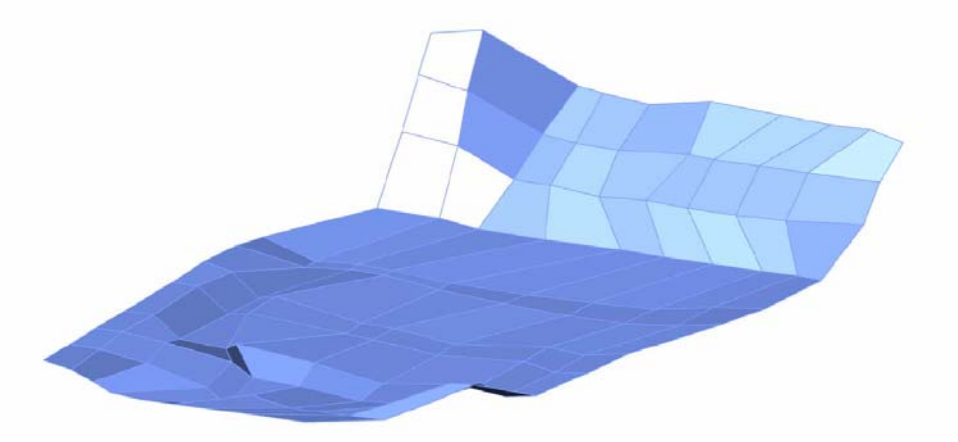
DATA SHEET NO. 12 … (CONTINUED)

VEHICLE INTRUSION MEASUREMENTS

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09

ADDITIONAL FLOORPAN MEASUREMENT POINTS (NON-STANDARD)

PRE-TEST



POST-TEST

Reference Planes: X – Front of Vehicle Centerline, X+ forward

Y – Vehicle Centerline, Y+ left

Z – Ground, Z+ up

DATA SHEET NO. 12 … (CONTINUED)

VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

Point No.	Row	Pre-Test			Post-Test			Difference		
		X	Y	Z	X	Y	Z	X	Y	Z
1	A	-2077	662	240	-2100	724	197	-23	62	-43
2	A	-2081	629	236	-2110	694	189	-29	65	-47
3	A	-2075	610	225	-2112	676	175	-37	66	-50
4	A	-2070	593	215	-2113	661	163	-43	68	-52
5	A	-2073	559	215	-2120	626	162	-47	67	-53
6	A	-2074	524	215	-2123	591	161	-49	67	-54
7	A	-2074	489	215	-2126	556	160	-52	67	-55
8	A	-2074	466	215	-2126	533	159	-52	67	-56
9	A	-2073	445	216	-2127	512	159	-54	67	-57
10	B	-2075	382	216	-2129	493	159	-54	111	-57
11	B	-2020	666	238	-2052	719	188	-32	53	-50
12	B	-2020	634	237	-2057	692	176	-37	58	-61
13	B	-2016	585	229	-2061	647	159	-45	62	-70
14	B	-2023	518	216	-2076	580	147	-53	62	-69
15	B	-2025	495	203	-2084	560	134	-59	65	-69
16	B	-2024	468	215	-2080	531	143	-56	63	-72
17	B	-2026	425	209	-2085	489	137	-59	64	-72
18	B	-2026	399	210	-2087	463	139	-61	64	-71
19	B	-2025	363	210	-2088	427	138	-63	64	-72
20	B	-2022	326	210	-2087	389	134	-65	63	-76
21	C	-1970	666	239	-2006	717	179	-36	51	-60
22	C	-1971	637	239	-2011	695	163	-40	58	-76
23	C	-1965	593	233	-2010	653	150	-45	60	-83
24	C	-1965	523	223	-2018	583	137	-53	60	-86
25	C	-1965	500	210	-2024	561	125	-59	61	-85
26	C	-1965	450	208	-2029	512	117	-64	62	-91
27	C	-1969	382	205	-2036	444	115	-67	62	-90
28	C	-1968	323	209	-2036	385	120	-68	62	-89
29	C	-1967	284	234	-2032	348	144	-65	64	-90
30	C	-1964	262	234	-2027	325	146	-63	63	-88
31	D	-1915	666	239	-1953	718	165	-38	52	-74
32	D	-1915	635	239	-1958	691	149	-43	56	-90
33	D	-1916	607	219	-1965	663	130	-49	56	-89
34	D	-1922	553	218	-1976	612	122	-54	59	-96
35	D	-1923	542	225	-1975	599	127	-52	57	-98
36	D	-1917	461	216	-1981	520	109	-64	59	-107
37	D	-1919	387	205	-1987	446	101	-68	59	-104
38	D	-1917	280	218	-1987	341	124	-70	61	-94
39	D	-1915	256	209	-1982	316	123	-67	60	-86
40	D	-1916	223	215	-1981	284	131	-65	61	-84

All measurements in millimeters

DATA SHEET NO. 12 … (CONTINUED)

VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

Point No.	Row	Pre-Test			Post-Test			Difference		
		X	Y	Z	X	Y	Z	X	Y	Z
41	E	-1825	666	240	-1871	710	155	-46	44	-85
42	E	-1826	638	240	-1876	684	144	-50	46	-96
43	E	-1829	603	218	-1884	649	124	-55	46	-94
44	E	-1830	582	222	-1890	628	120	-60	46	-102
45	E	-1830	478	216	-1897	533	78	-67	55	-138
46	E	-1832	447	214	-1899	502	81	-67	55	-133
47	E	-1837	374	210	-1905	431	94	-68	57	-116
48	E	-1842	278	218	-1910	346	135	-68	68	-83
49	E	-1846	242	214	-1917	307	148	-71	65	-66
50	E	-1847	207	218	-1919	273	156	-72	66	-62
51	F	-1766	665	242	-1825	664	159	-59	-1	-83
52	F	-1769	633	237	-1835	634	139	-66	1	-98
53	F	-1776	602	217	-1838	615	136	-62	13	-81
54	F	-1775	583	222	-1866	527	72	-91	-56	-150
55	F	-1796	478	215	-1866	498	62	-70	20	-153
56	F	-1793	445	214	-1871	431	82	-78	-14	-132
57	F	-1800	376	209	-1865	336	115	-65	-40	-94
58	F	-1794	279	217	-1863	298	127	-69	19	-90
59	F	-1789	242	213	-1865	254	142	-76	12	-71
60	F	-1786	196	220	-1857	219	151	-71	23	-69
61	G	-1706	664	240	-1754	619	153	-48	-45	-87
62	G	-1683	604	219	-1755	576	133	-72	-28	-86
63	G	-1679	556	222	-1757	543	121	-78	-13	-101
64	G	-1676	522	221	-1773	494	90	-97	-28	-131
65	G	-1683	461	216	-1791	421	81	-108	-40	-135
66	G	-1691	386	215	-1813	364	84	-122	-22	-131
67	G	-1699	312	215	-1798	309	130	-99	-3	-85
68	G	-1698	251	215	-1784	268	165	-86	17	-50
69	G	-1702	191	222	-1792	239	176	-90	48	-46
70	G	-1709	139	233	-1788	186	207	-79	47	-26
71	H	-1657	663	233	-1741	622	138	-84	-41	-95
72	H	-1663	604	219	-1741	578	126	-78	-26	-93
73	H	-1663	558	223	-1743	544	115	-80	-14	-108
74	H	-1661	522	221	-1748	489	91	-87	-33	-130
75	H	-1657	462	215	-1762	409	91	-105	-53	-124
76	H	-1656	380	214	-1774	345	108	-118	-35	-106
77	H	-1651	312	214	-1778	279	111	-127	-33	-103
78	H	-1648	247	215	-1771	226	119	-123	-21	-96
79	H	-1635	192	220	-1765	182	160	-130	-10	-60
80	H	-1632	136	225	-1773	189	193	-141	53	-32

All measurements in millimeters

DATA SHEET NO. 12 … (CONTINUED)

VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

Point No.	Row	Pre-Test			Post-Test			Difference		
		X	Y	Z	X	Y	Z	X	Y	Z
81	I	-1541	606	234	-1639	612	169	-98	6	-65
82	I	-1539	540	232	-1641	547	158	-102	7	-74
83	I	-1525	507	222	-1626	514	150	-101	7	-72
84	I	-1523	435	221	-1634	444	144	-111	9	-77
85	I	-1523	354	221	-1644	363	139	-121	9	-82
86	I	-1525	306	221	-1654	316	134	-129	10	-87
87	I	-1526	253	221	-1660	264	128	-134	11	-93
88	I	-1526	199	222	-1667	212	127	-141	13	-95
89	I	-1529	160	223	-1676	173	126	-147	13	-97
90	I	-1540	128	226	-1690	143	125	-150	15	-101
91	J	-1504	598	300	-1629	590	240	-125	-8	-60
92	J	-1504	537	294	-1630	536	228	-126	-1	-66
93	J	-1475	495	257	-1594	493	199	-119	-2	-58
94	J	-1480	453	259	-1602	452	194	-122	-1	-65
95	J	-1479	401	254	-1606	402	187	-127	1	-67
96	J	-1481	349	258	-1615	352	185	-134	3	-73
97	J	-1485	303	258	-1624	306	179	-139	3	-79
98	J	-1484	251	257	-1627	254	171	-143	3	-86
99	J	-1482	198	258	-1630	200	165	-148	2	-93
100	J	-1475	118	262	-1636	122	169	-161	4	-93
101	K	-1478	593	349	-1614	589	290	-136	-4	-59
102	K	-1480	539	340	-1618	536	278	-138	-3	-62
103	K	-1434	487	290	-1568	478	243	-134	-9	-47
104	K	-1439	448	288	-1575	441	235	-136	-7	-53
105	K	-1440	401	288	-1581	393	229	-141	-8	-59
106	K	-1437	327	293	-1589	319	229	-152	-8	-64
107	K	-1437	300	291	-1591	292	223	-154	-8	-68
108	K	-1437	251	291	-1595	243	218	-158	-8	-73
109	K	-1437	198	291	-1600	191	210	-163	-7	-81
110	K	-1429	125	290	-1597	119	204	-168	-6	-86
111	L	-1460	588	384	-1609	584	327	-149	-4	-57
112	L	-1451	537	391	-1616	539	324	-165	2	-67
113	L	-1390	471	327	-1554	453	290	-164	-18	-37
114	L	-1391	444	323	-1547	426	283	-156	-18	-40
115	L	-1391	394	319	-1546	379	275	-155	-15	-44
116	L	-1390	328	330	-1555	313	279	-165	-15	-51
117	L	-1392	251	328	-1565	235	268	-173	-16	-60
118	L	-1394	197	326	-1572	182	258	-178	-15	-68
119	L	-1391	156	326	-1568	141	253	-177	-15	-73
120	L	-1394	119	319	-1571	105	241	-177	-14	-78

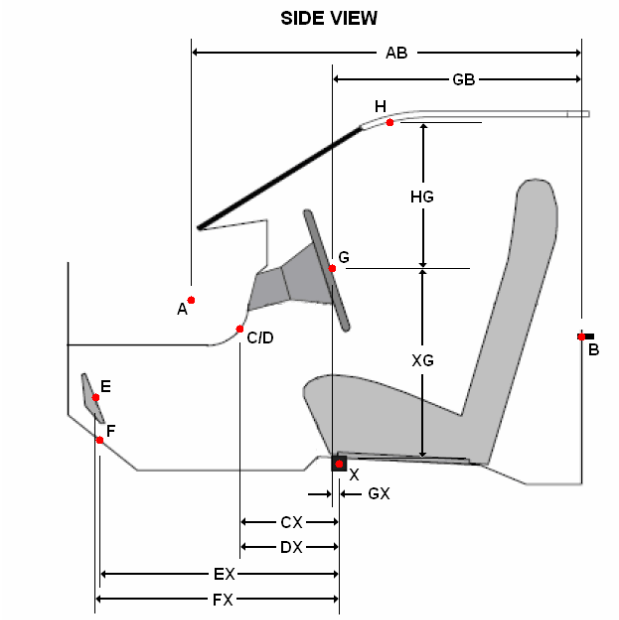
All measurements in millimeters

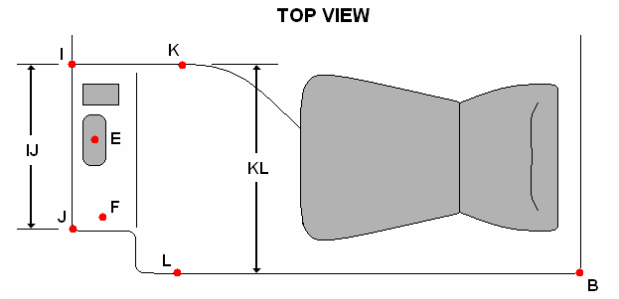
DATA SHEET NO. 12 … (CONTINUED)

VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09





DRIVER COMPARTMENT INTRUSION

Description	Driver's Side			Passenger's Side		
	Pre-Test	Post-Test	Difference	Pre-Test	Post-Test	Difference
AB	939	869	-70	930	902	-28
GB	500	390	-110	648	595	-53
HG	411	367	-44	503	519	16
XG	623	737	114	534	510	-24
CX	258	216	-42	267	165	-102
DX	257	190	-67	254	196	-58
EX	560	314	-246			
FX	572	446	-126	586	546	-40
GX	56	-42	-98	211	176	-35
IJ	379	370	-9			
KL	525	433	-92			

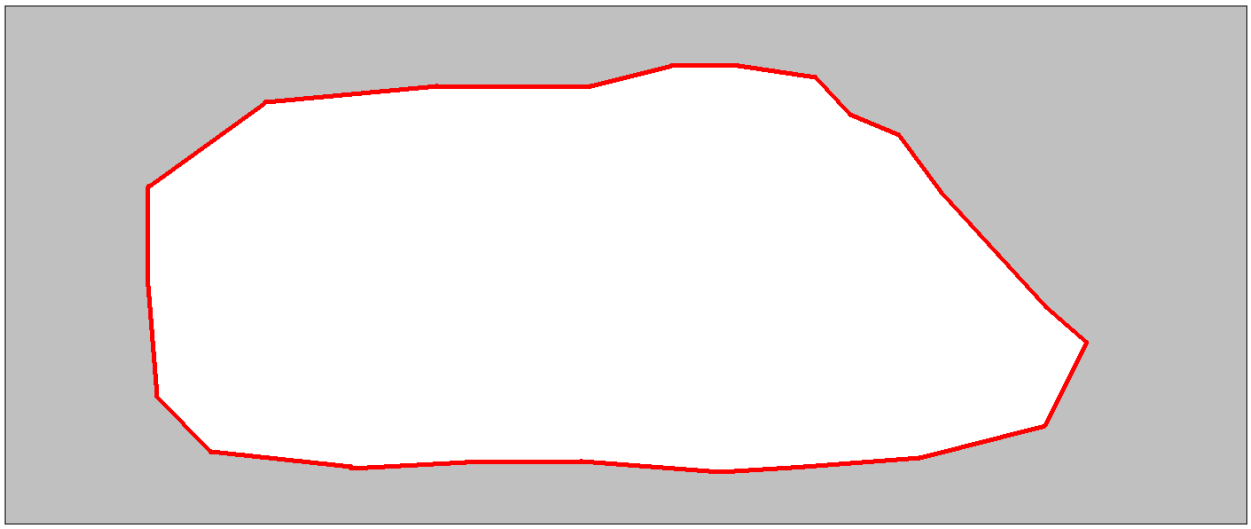
All measurements in millimeters

DATA SHEET NO. 13

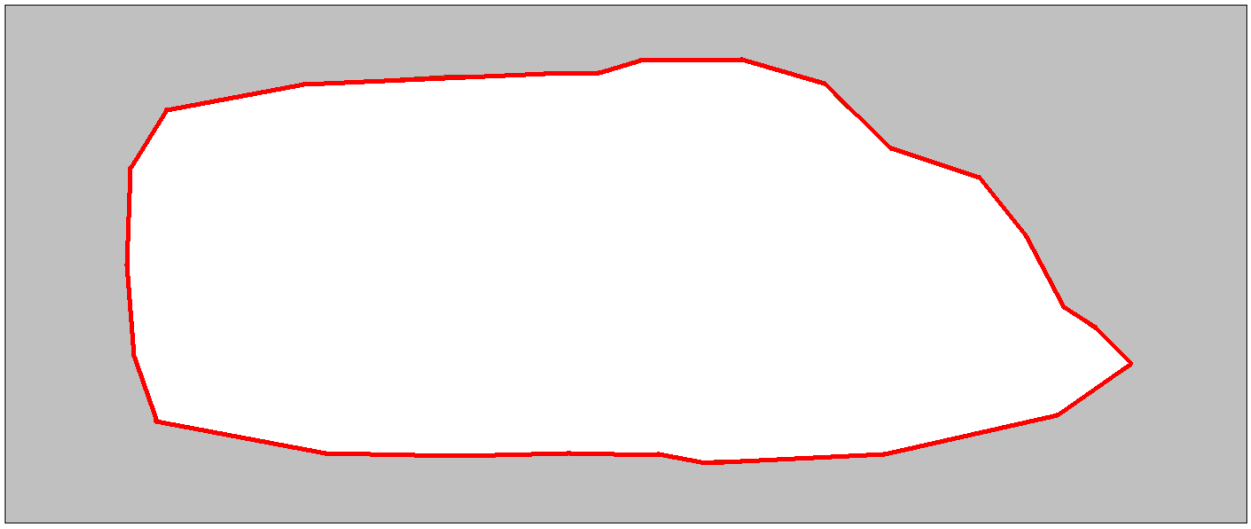
EXTERIOR PROFILE MEASUREMENTS

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09

LEVEL 1



LEVEL 2



NOTE: No Pre-Test Measurements Available.

DATA SHEET NO. 13 … (CONTINUED)

EXTERIOR PROFILE MEASUREMENTS

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

LEVEL 1

Point	Pre-Test			Post-Test			Difference		
No.	X	Y	Z	X	Y	Z	X	Y	Z
1				4434	-716	732			
2				3822	-860	731			
3				3241	-908	733			
4				2867	-923	724			
5				2542	-913	737			
6				2173	-883	744			
7				1685	-880	745			
8				1067	-907	728			
9				416	-828	728			
10				151	-564	726			
11				105	-14	722			
12				108	452	717			
13				674	855	714			
14				1522	930	713			
15				2214	934	714			
16				2673	1034	713			
17				2950	1029	713			
18				3326	976	714			
19				3497	803	718			
20				3721	705	721			
21				3951	398	729			
22				4224	94	733			
23				4456	-151	750			
24				4643	-308	802			

DATA SHEET NO. 13 … (CONTINUED)

EXTERIOR PROFILE MEASUREMENTS

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

LEVEL 2

Point	Pre-Test			Post-Test			Difference		
No.	X	Y	Z	X	Y	Z	X	Y	Z
1				4478	-695	604			
2				3647	-889	605			
3				2744	-923	604			
4				2535	-894	605			
5				2135	-884	606			
6				1732	-893	607			
7				951	-886	606			
8				117	-725	607			
9				3	-385	607			
10				-25	18	607			
11				-3	492	588			
12				169	772	586			
13				836	899	583			
14				1543	943	582			
15				2001	948	570			
16				2250	947	580			
17				2467	1019	576			
18				2937	1017	578			
19				3350	891	553			
20				3437	795	538			
21				3664	594	608			
22				4094	441	606			
23				4297	185	615			
24				4510	-191	628			
25				4658	-290	630			
26				4829	-465	618			

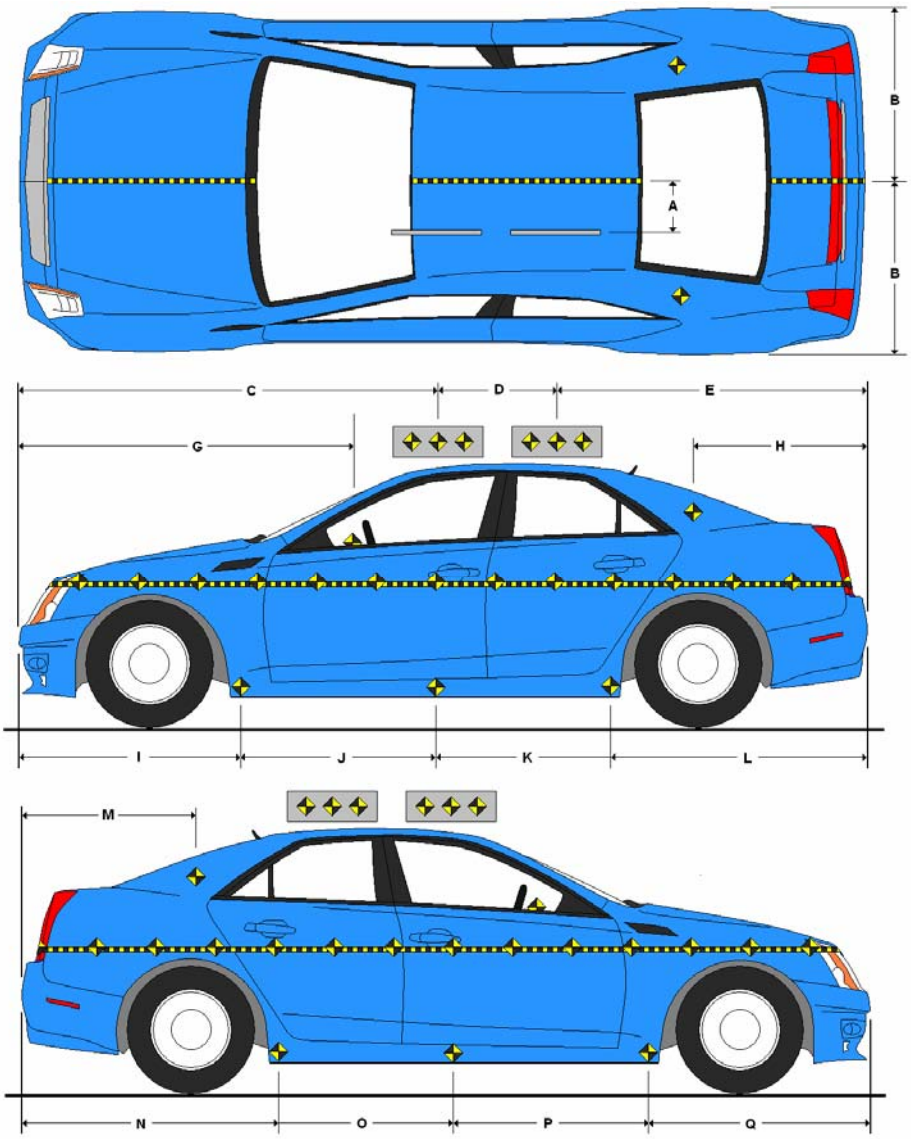
DATA SHEET NO. 14

PHOTOGRAPHIC REFERENCE TARGET LOCATIONS

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

Item	Value
A	334
B	930
C	2334
D	611
E	2078
F	
G	1861
H	1175
I	1524
J	938
K	937
L	1625
M	1191
N	1616
O	936
P	934
Q	1524



ADDITIONAL PHOTOGRAPHIC REFERENCE DATA

Description	Value	Notes
Driver's Door Panel Reference Target Spacing	304	Visible in Camera View No. 13
Passenger's Door Panel Reference Target Spacing	304	Visible in Camera View No. 10
Overhead Reference Panel Spacing	152	Visible in Camera View No. 7

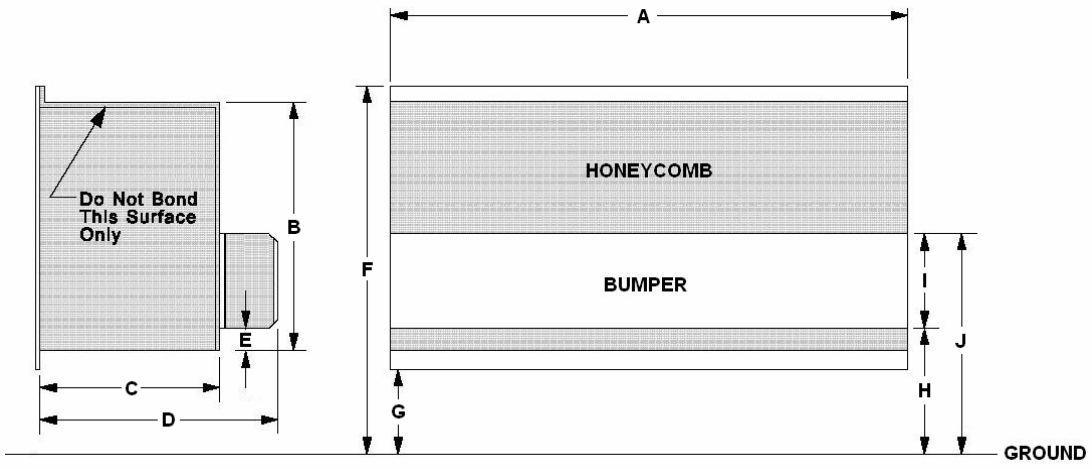
All measurements in millimeters

DATA SHEET NO. 15

DEFORMABLE BARRIER HONEYCOMB FACE SETUP AND STATIC CRUSH

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09



MDB SETUP MEASUREMENTS

Letter	Description	Target	Value
A	Barrier Width	1676	1676
B	Barrier Height	559	560
C	Barrier Body Length	381	382
D	Total Barrier Length	483	485
E	Bumper Height Above Bottom of Barrier	51	52
F	Top of Barrier Flange Above Ground	838	838
G	Bottom of Barrier Flange Above Ground	279	280
H	Bottom of Bumper Above Ground	330	331
I	Bumper Height	203	204
J	Top of Bumper Above Ground	533	536

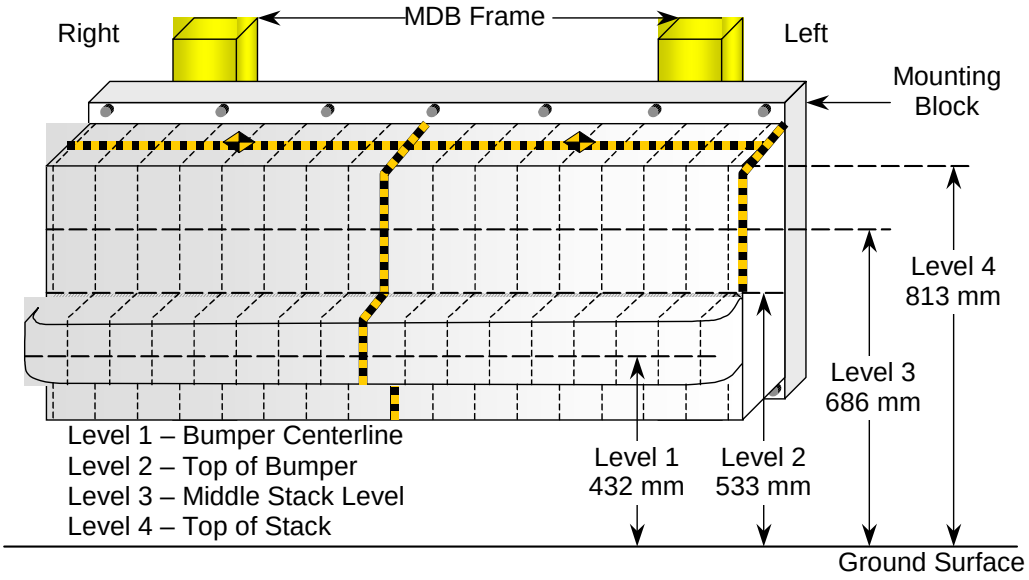
All measurements in millimeters

DATA SHEET NO. 15 … (CONTINUED)

DEFORMABLE BARRIER HONEYCOMB FACE SETUP AND STATIC CRUSH

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09



DEFORMABLE BARRIER STATIC CRUSH

Stack Level	Distance Right of Center								CL	Distance Left of Center							
	800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800
1	63	128	133	143	226	257	252	278	346	413	436	416	361	372	400	424	442
2	-38	-15	2	23	50	110	160	212	271	321	333	320	295	322	342	364	365
3	-60	-39	33	15	45	49	84	162	285	235	201	230	219	229	255	282	314
4	-73	-53	-30	-2	43	83	105	144	232	227	200	189	199	215	241	272	300

All measurements in millimeters

DATA SHEET NO. 16

POST-TEST AIRBAG DATA

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

Description	Units	Driver	Right Front Passenger
Number of Vent Holes		2	
Size of Vent Holes	mm	20	
Shape of Vent Holes		Round	
Total Vent Area	mm^2	628	
Length of Deflated Bag (if Square)	mm		
Width if Deflated Bag (if Square)	mm		
Diameter of Deflated Bag (if Round)	mm	590	
Airbag Tethered		No	
Length of Tethers	mm		

DATA SHEET NO. 17

ACCIDENT INVESTIGATION DATA

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09

VEHICLE INFORMATION

VIN:	1FAFP53U47A117785	Wheelbase (mm):	2757
Vehicle Size Category:	4-Door Sedan	Test Weight (kg):	1740

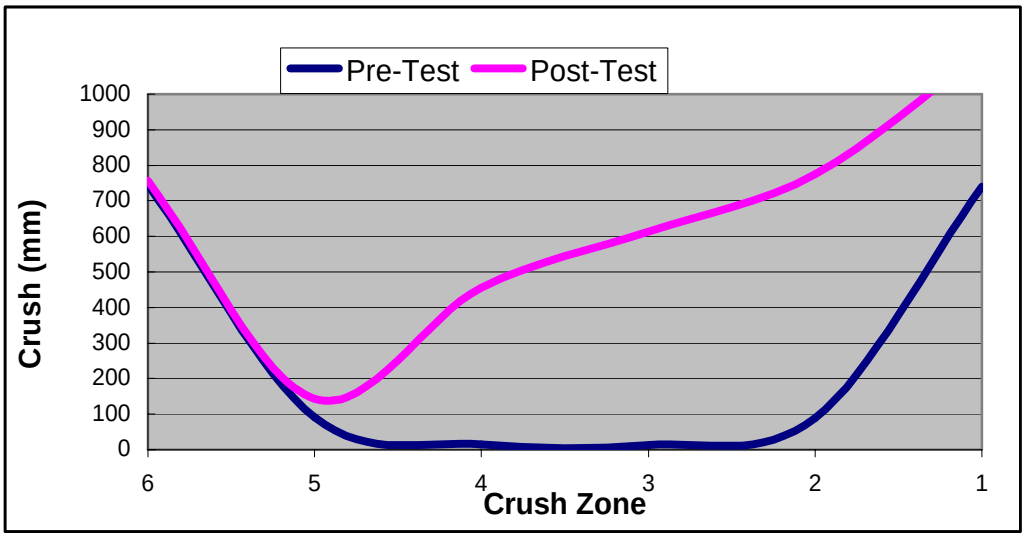
ACCELEROMETER DATA

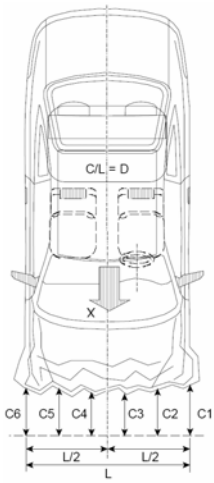
Accelerometer Location:	CG		
Cal. Procedure/Interval:	6 month/drop test		
Integration Algorithm:	NHTSA Standard	Linearity:	Good
Impact Velocity (km/h):	125.7		
Velocity Change (km/h):	54.9	Time of Separation (msec):	N/A

CRUSH PROFILE

Collision Damage Classification:	11FLAW2	Midpoint of Damage:	N/A
Damage Region Length:	1752	Impact Mode:	15°, 50% Offset

No.	Meaurement Description	Units	Pre-Test	Post-Test	Difference	
C1	Crush Zone 1 at Left Side of Vehicle	mm	739	1117	378	13
C2	Crush Zone 2 at Left Side of Vehicle	mm	89	776	687	
C3	Crush Zone 3 at Left Side of Vehicle	mm	13	613	600	
C4	Crush Zone 4 at Right Side of Vehicle	mm	14	455	441	13
C5	Crush Zone 5 at Right Side of Vehicle	mm	92	144	52	13
C6	Crush Zone 6 at Right Side of Vehicle	mm	745	756	11	13





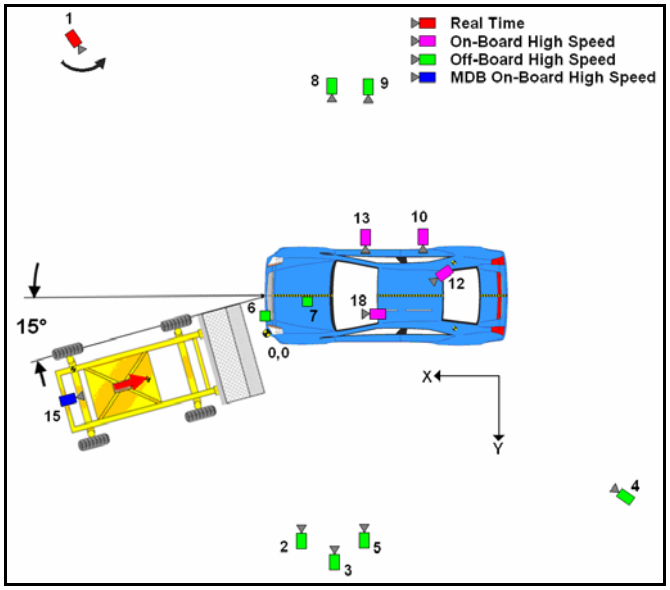
[13] - Post-Test measurements were taken in the approximate location of Pre-Test measurements. Exact points were unavailable due to the majority of the bumper cover coming free from the vehicle.

DATA SHEET NO. 18

VIDEO COVERAGE DATA

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09



View No.	Description	Location (m)			Angle (°)	Lens (mm)	Frame Rate
		X	Y	Z			
1	Real Time Panning						30
2	Overall Left Side	-1.69	12.11	1.15	0	24	1000
3	Left Side	-3.42	14.67	1.09	0	35	1000
4	Driver and Interior	-12.54	8.16	3.02	-5	ZOOM	1000
5	Left Tight Target Driver to IP Contact	-4.29	12.04	1.16	0	85	1000
6	Overhead - Impact Point	0.36	0.05	7.17	90	50	1000
7	Overhead - Overall	-0.11	0.12	7.63	90	14	1000
8	Right Side	0.68	-14.93	1.23	0	35	1000
9	Overall Right Side	1.98	-13.50	1.22	0	24	1000
10	Rear Occupant Side, On-Board	-3.14	-1.69	1.15	-1	10	1000
11	Right Passenger and Interior View						[14]
12	Driver Over Shoulder, On-Board	-3.17	-2.91	1.31	-2	12.5	1000
13	Driver Side, On-Board	-2.26	-1.37	1.15	-1	10	1000
14	Driver Front View from MDB						[14]
15	Windshield View from MDB						
16	Pit View of Engine	-0.68	-0.57	-1.82	-90	8	1000
17	Pit View of Fuiel Tank	-3.07	-0.67	-1.93	-90	12.5	1000
18	Driver Lower Leg, On-Board	-1.96	0.27	0.51	0	8.5	1000

All measurements are made relative to the point of impact.

[14] – Camera not required by COTR.

DATA SHEET NO. 19

FMVSS 212 / 219 SUMMARY

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09

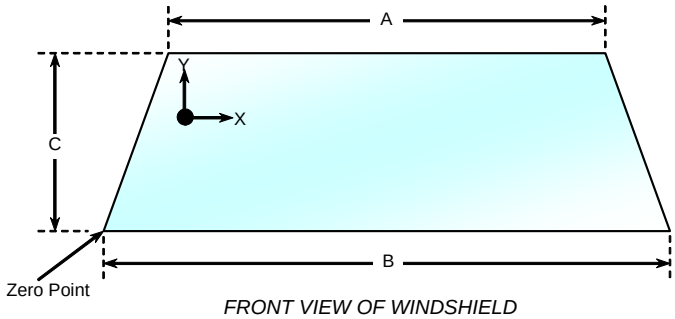
Windshield mounting details: windshield glass is secured to the vehicle frame with rubber cement type adhesive and rubber molding.

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

Temperature of windshield molding during the test: 21.1° C

WINDSHIELD PERIPHERY MEASUREMENTS

Measurement	Units	Pre-Test	Post-Test	% Retention
Left Side	mm	2276	1630	71.6%
Right Side	mm	2276	1760	77.3%
Total	mm	4552	3390	



FRONT VIEW OF WINDSHIELD

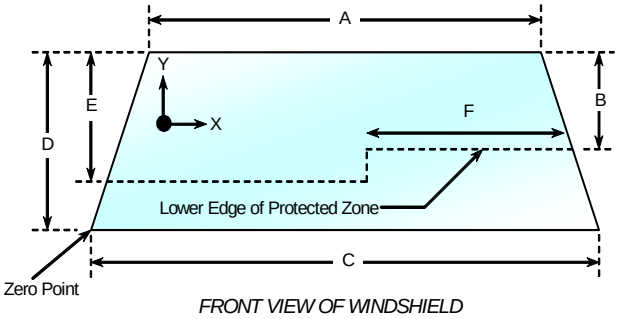
WINDSHIELD DIMENSIONS

Item	Units	Segment Length	Molding Width
A	mm	1080	22
B	mm	1632	15
C-Left	mm	920	22
C-Right	mm	920	22

DATA SHEET NO. 19 … (CONTINUED)

FMVSS 212 / 219 SUMMARY

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



WINDSHIELD AND PROTECTED ZONE

Item	Units	Value
A	mm	1080
B	mm	380
C	mm	1632
D	mm	920
E	mm	526
F	mm	655

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. 20

FMVSS 301 FUEL SYSTEM INTEGRITY POST-IMPACT DATA

Test Vehicle: 2007 Ford Taurus SE 4-Door Sedan NHTSA No.: R70208

Test Program: 80 mph, 15°, 50% Offset MDB to Vehicle Test Date: 11/17/09

Temperature at Time of Impact: 21.1° Test Time: 3:15 PM

Stoddard Solvent Spillage Measurements

A. From impact until vehicle motion ceases: 0 oz.
(Maximum allowable = 1 oz.)

B. For the 5 minute period after motion ceases: 0 oz.
(Maximum allowable = 5 oz.)

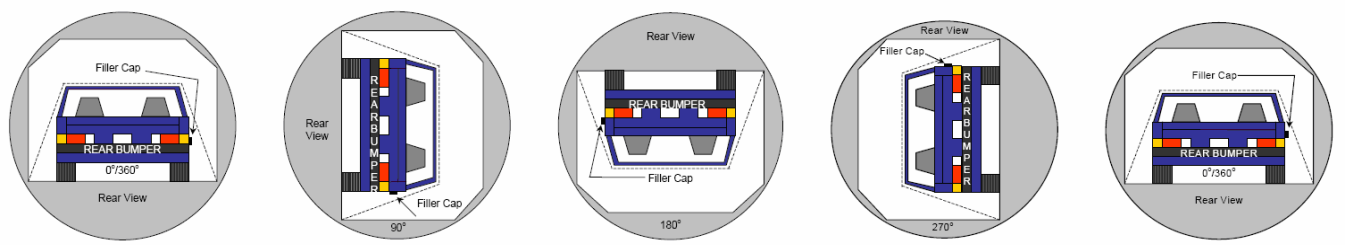
C. For the following 25 minutes: 0 oz.
(Maximum allowable = 1 oz./minute)

D. Spillage: No spillage occurred

DATA SHEET NO. 21

FMVSS 301 STATIC ROLLOVER DATA

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



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 180 seconds.
2. The position hold time at each position is 300 seconds (minimum).
3. Details of Stoddard solvent spillage: No spillage occurred

SOLVENT COLLECTION TIME TABLE IN SECONDS

Test Phase	Rotation Time	Hold Time	Total Time
0° To 90°	90	300	390
90° To 180°	82	300	382
180° To 270°	75	300	375
270° To 360°	61	300	361

FMVSS 301 SPILLAGE TABLE

Test Phase	First 5 Minutes	Sixth Minute	Seventh Minute	Eighth Minute
0° To 90°	0			
90° To 180°	0			
180° To 270°	0			
270° To 360°	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. 22

DUMMY / VEHICLE TEMPERATURE STABILIZATION

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09

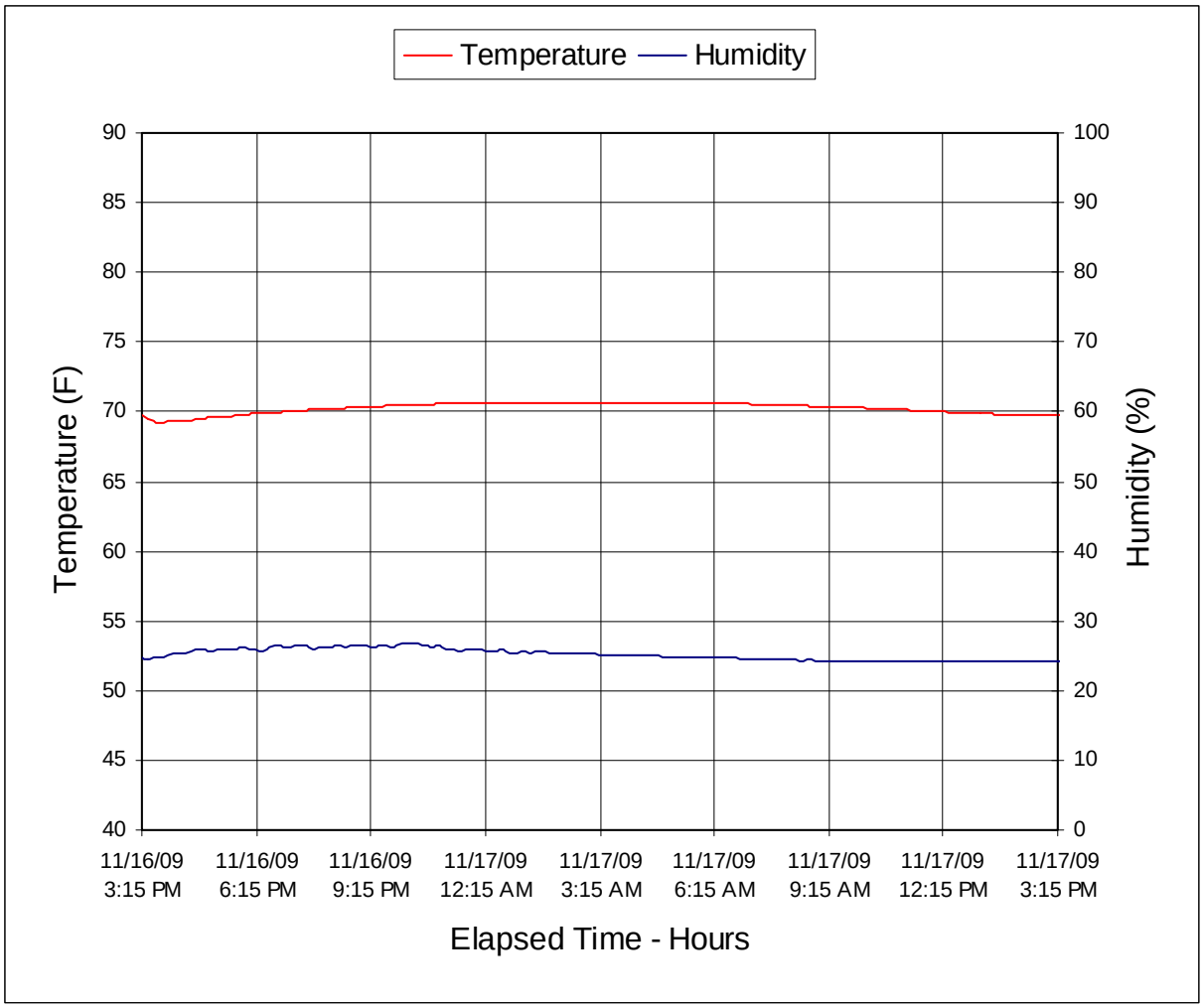


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Figure A-1: Test Vehicle, Right Front ¾ View, As-Received

Figure A-2: Test Vehicle, Left Rear ¾ View, As-Received

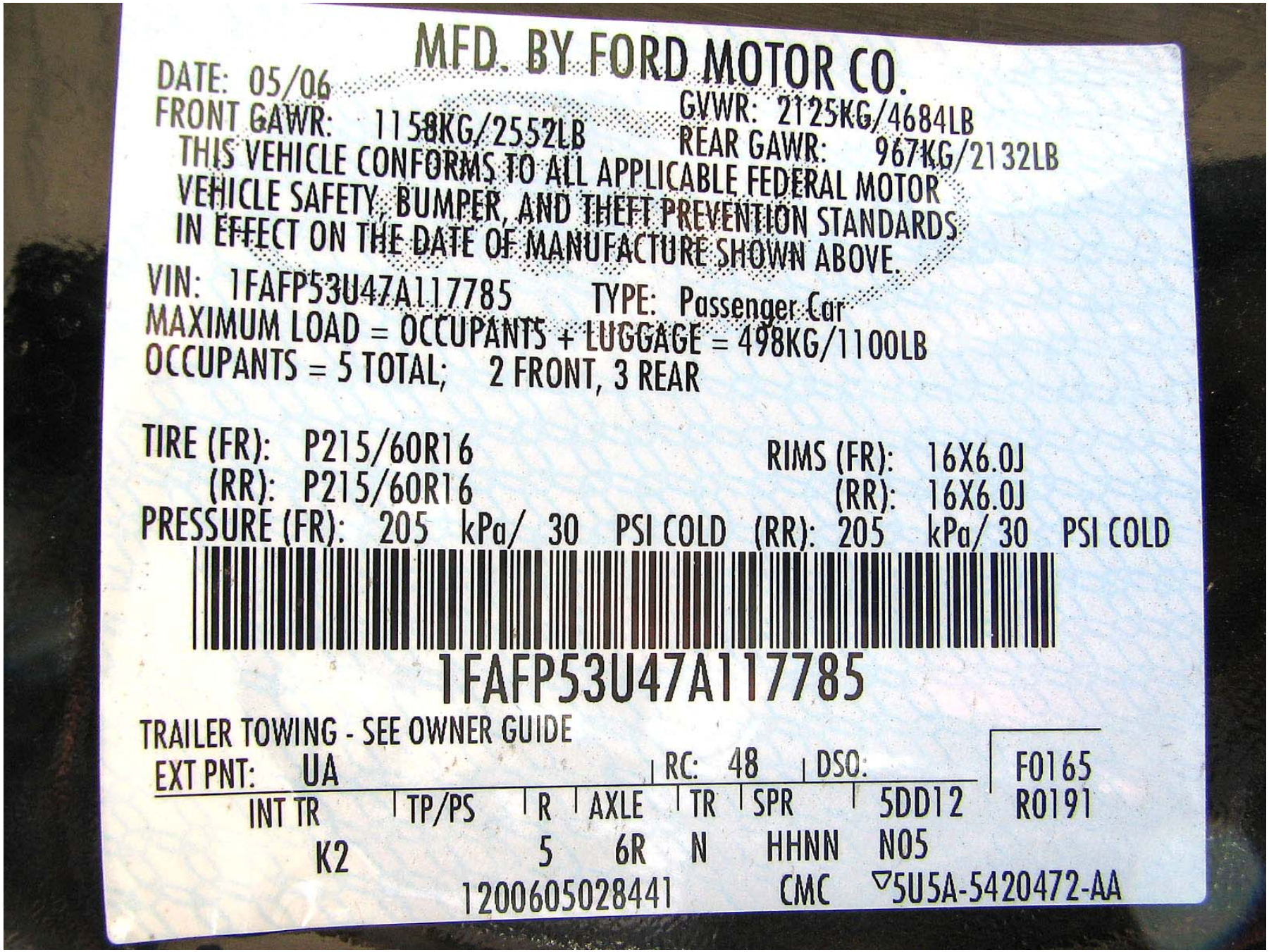

Figure A-3: Test Vehicle Manufacturer's Label

Figure A-4: Test Vehicle Tire Placard

Figure A-5: Test Vehicle Pre-Test Front View

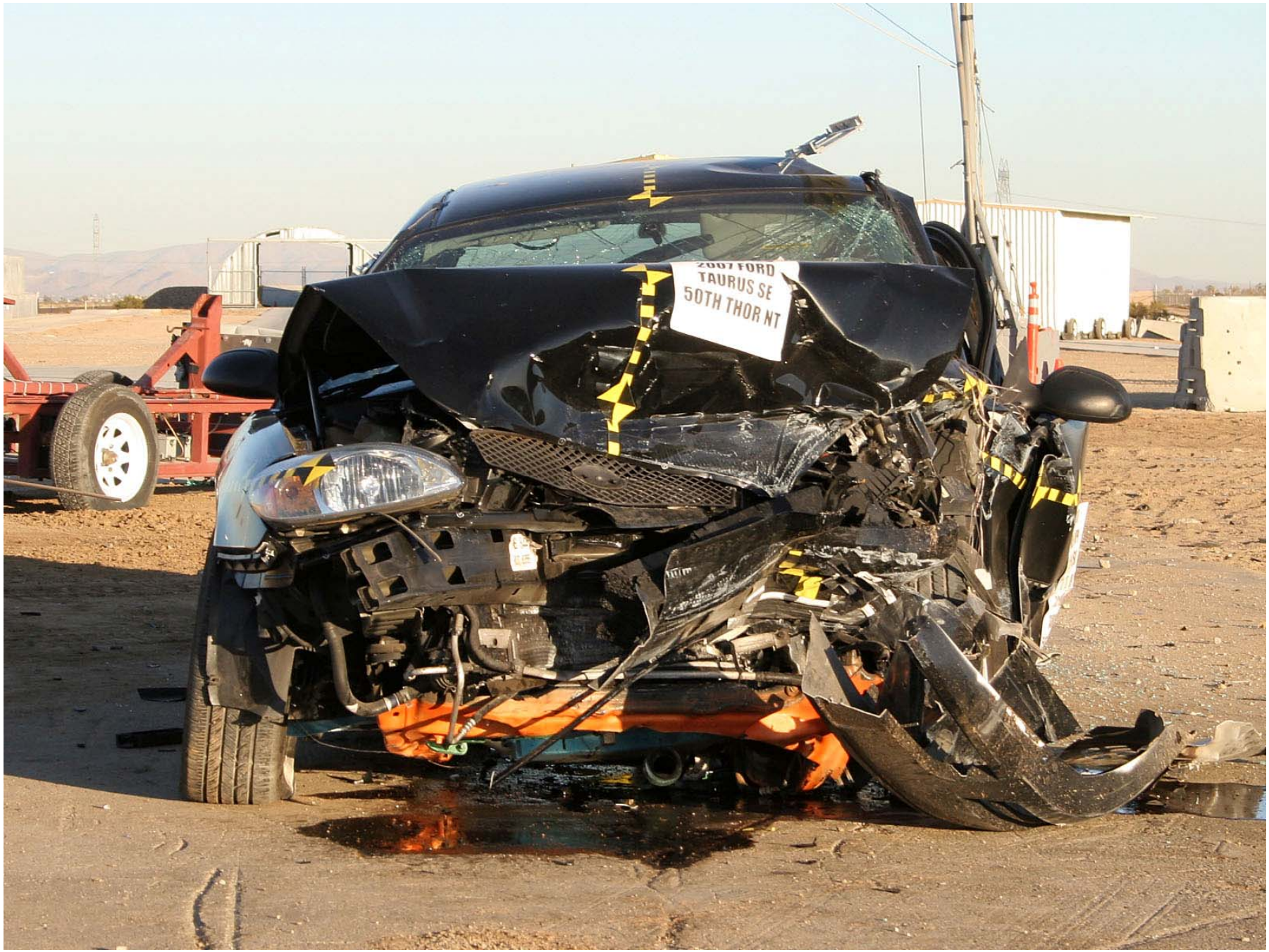

Figure A-6: Test Vehicle Post-Test Front View

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

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

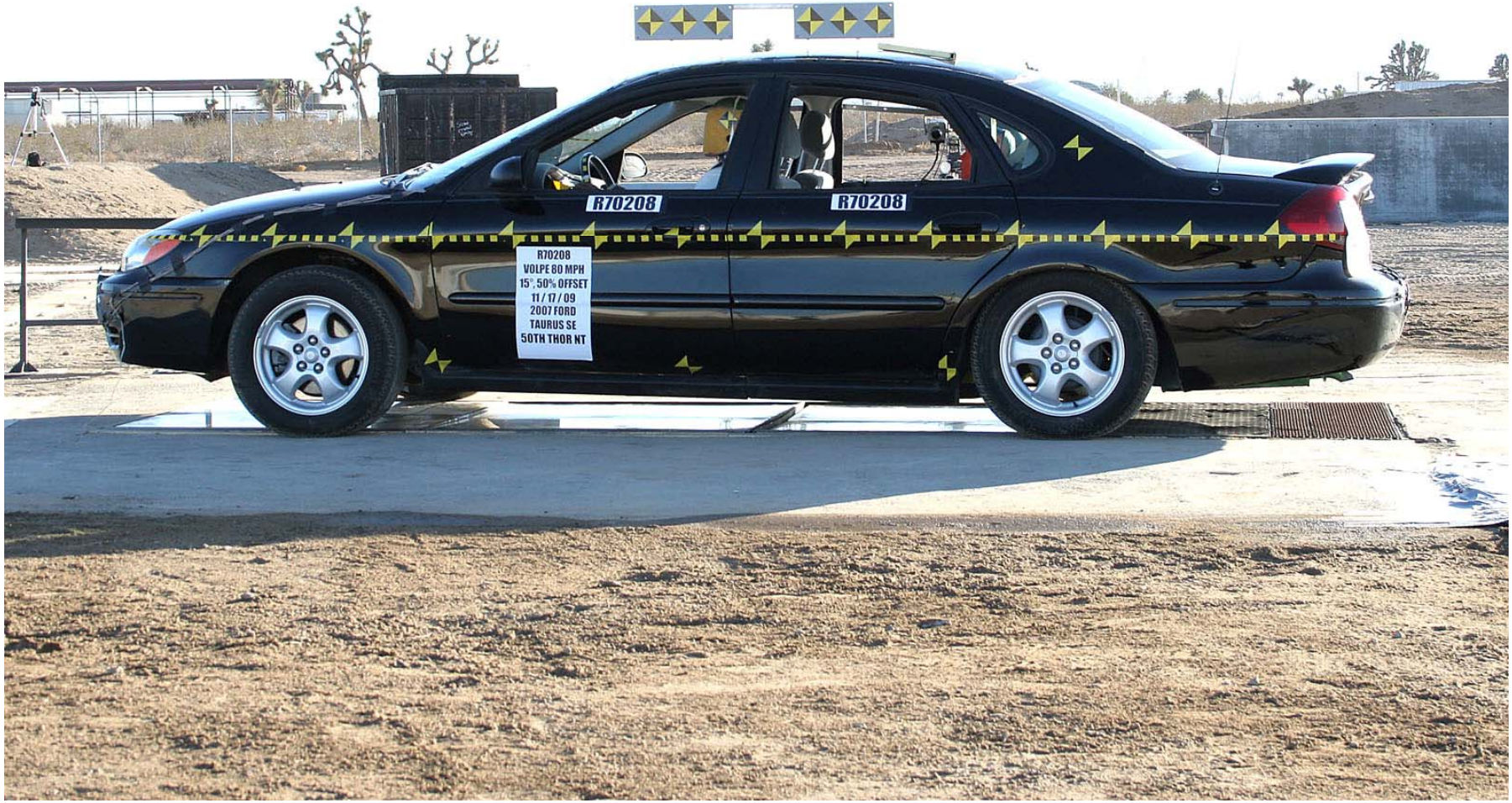

Figure A-9: Test Vehicle Pre-Test Left Side View

Figure A-10: Test Vehicle Post-Test Left Side View

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

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

Figure A-13: Test Vehicle Pre-Test Rear View

Figure A-14: Test Vehicle Post-Test Rear View

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

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

Figure A-17: Test Vehicle Pre-Test Right Side View

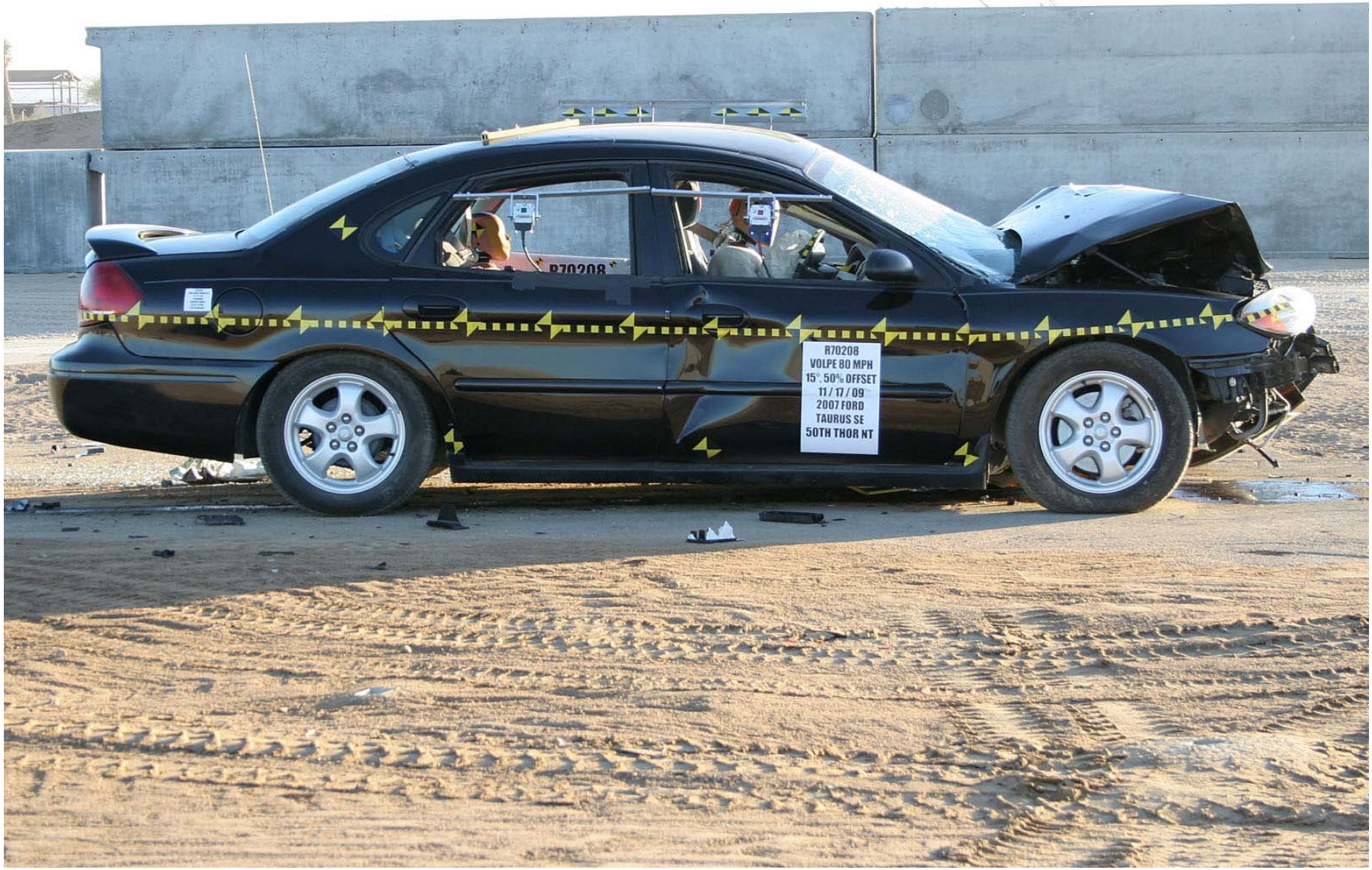

Figure A-18: Test Vehicle Pre-Test Right Side View

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

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

Figure A-21: Test Vehicle Pre-Test Overhead View

Figure A-22: Test Vehicle Post-Test Overhead View

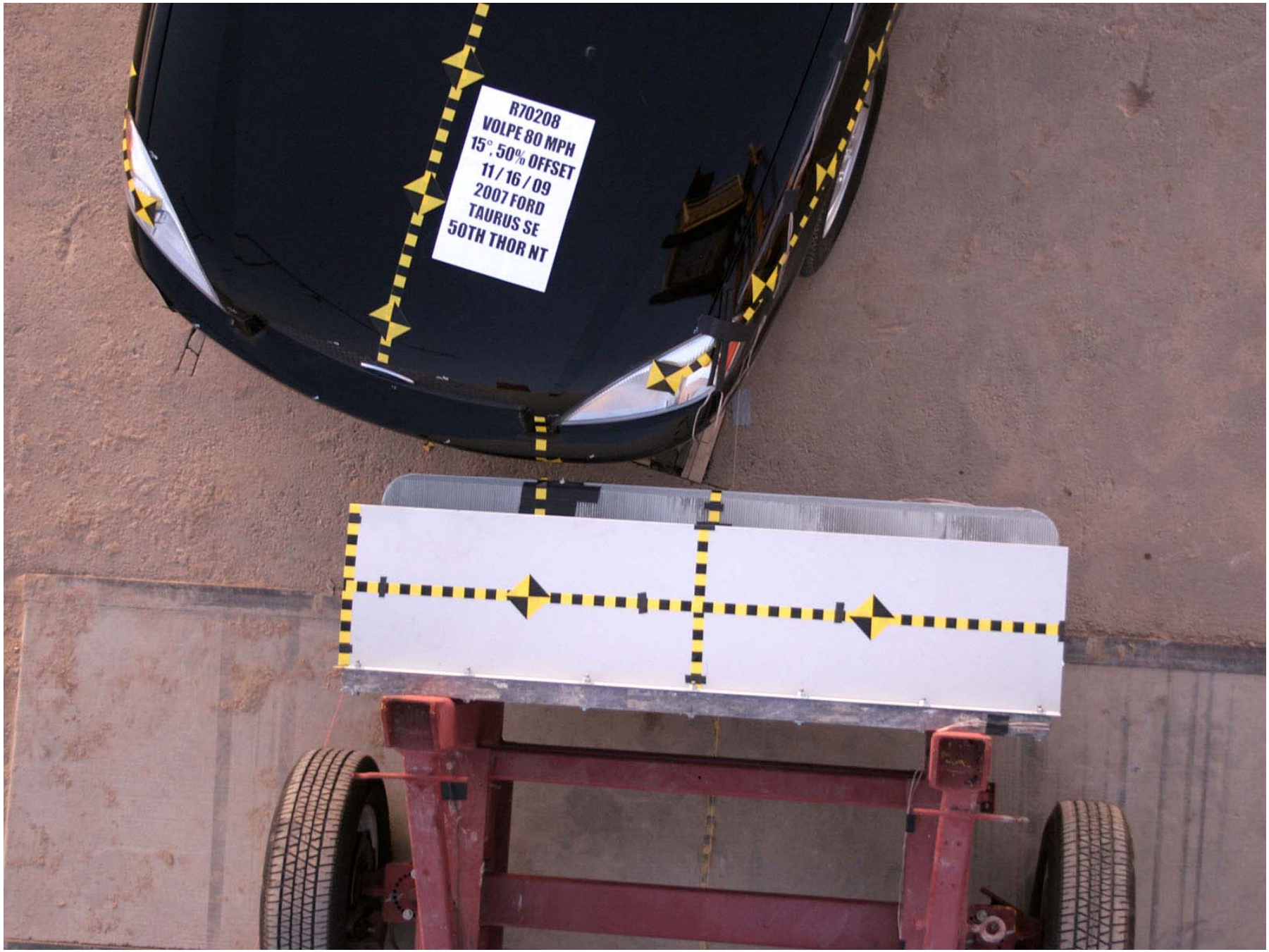

Figure A-23: Test Vehicle Pre-Test Overhead Close-Up View

Figure A-24: Test Vehicle Post-Test Overhead Close-Up View

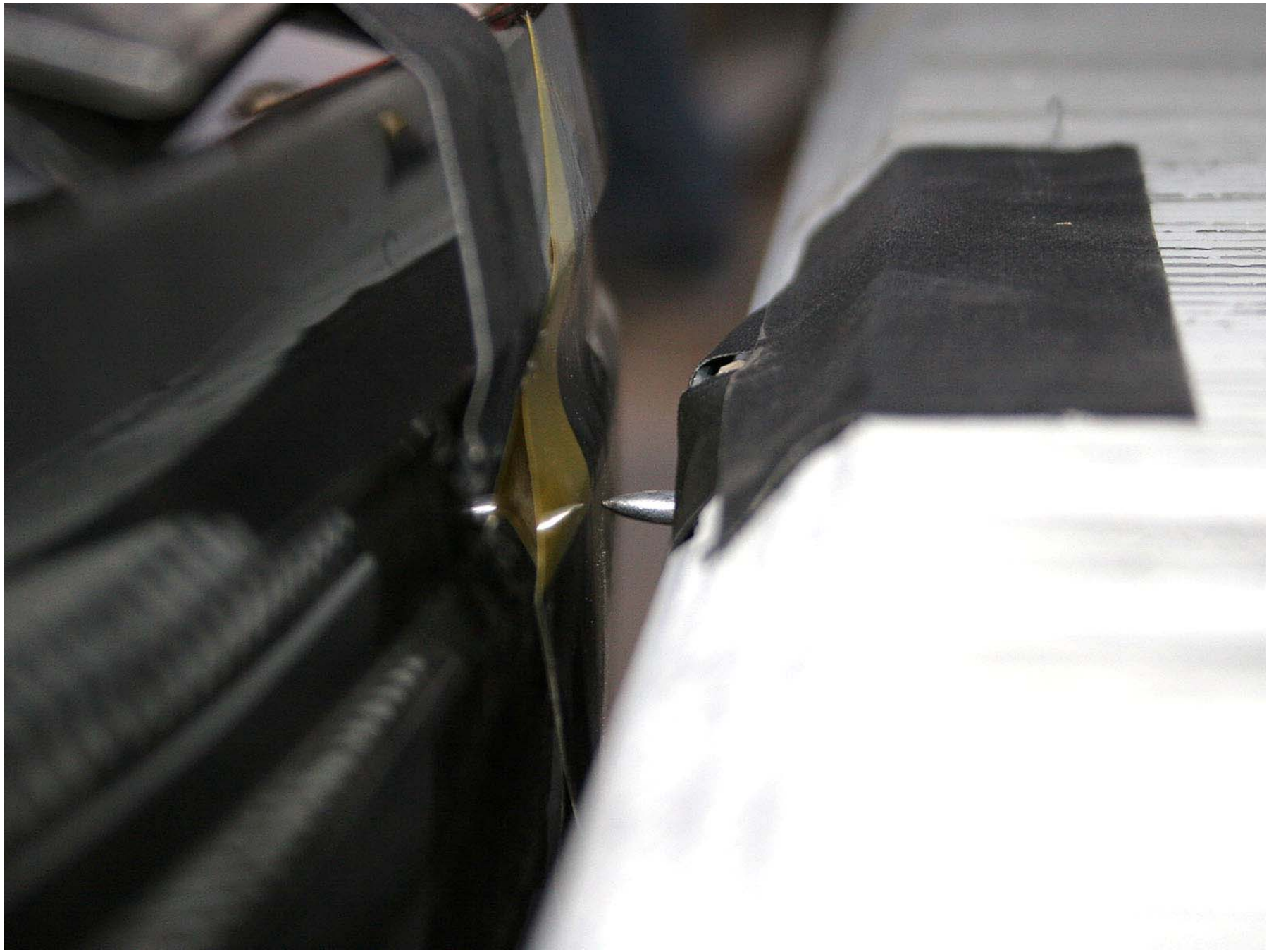

Figure A-25: Test Vehicle Pre-Test Impact Point Marker

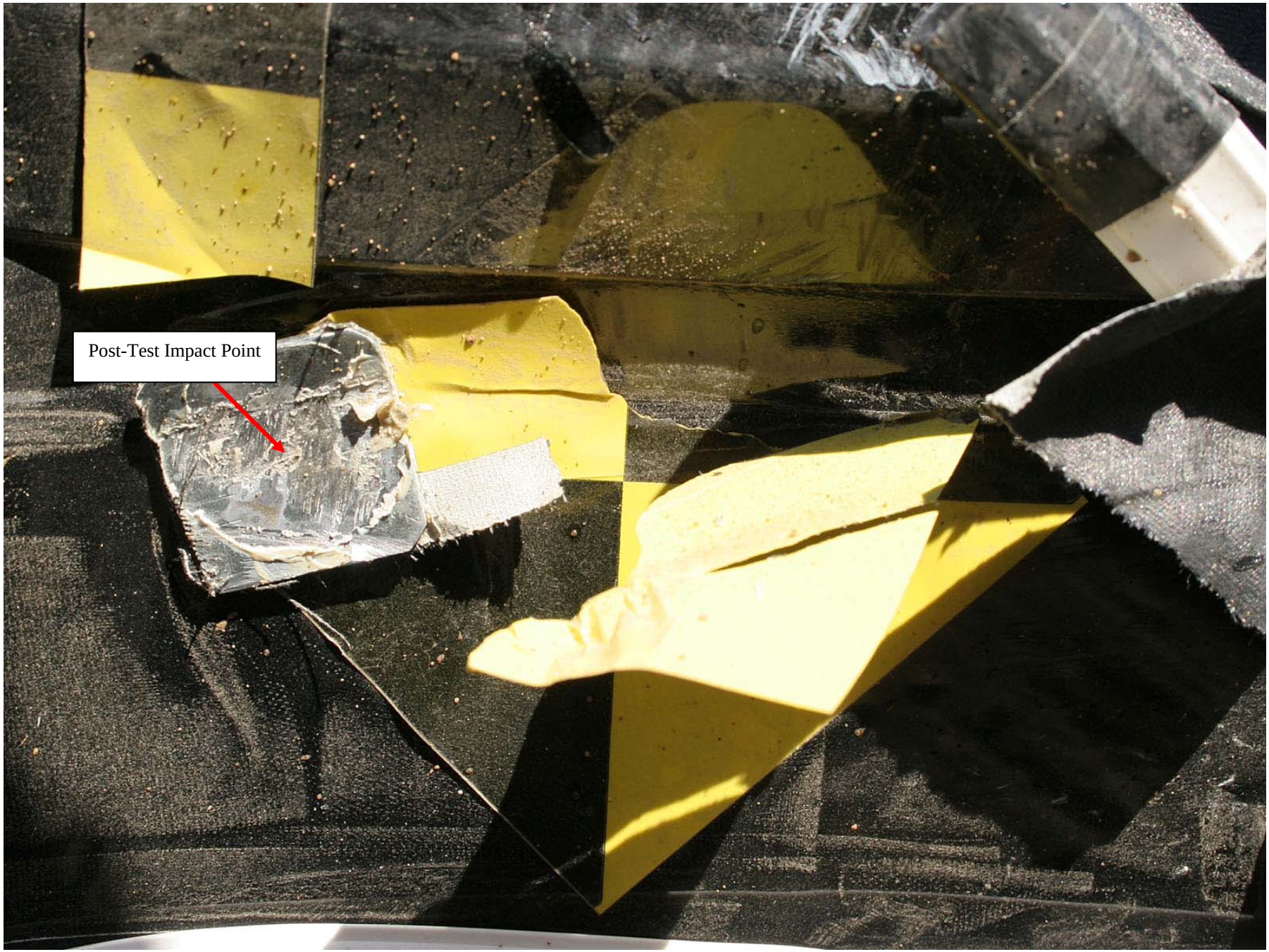

Figure A-26: Test Vehicle Post-Test Impact Point Marker

Figure A-27: Test Vehicle Pre-Test Impact Point Marker

Figure A-28: Test Vehicle Post-Test Impact Point Marker

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Figure A-30: Test Vehicle Post-Test Front ¾ View of Left Side Doors

Figure A-31: Test Vehicle Pre-Test Rear ¾ View of Left Side Doors

Figure A-32: Test Vehicle Post-Test Rear ¾ View of Left Side Doors

Figure A-33: Test Vehicle Pre-Test Front ¾ View of Right Side Doors

Figure A-34: Test Vehicle Post-Test Front ¾ View of Right Side Doors

Figure A-35: Test Vehicle Pre-Test Rear ¾ View of Right Side Doors

Figure A-36: Test Vehicle Post-Test Rear ¾ View of Right Side Doors

Figure A-37: Test Vehicle Pre-Test Left Front Door

Figure A-38: Test Vehicle Post-Test Left Front Door

Figure A-39: Test Vehicle Pre-Test Left Rear Door

Figure A-40: Test Vehicle Post-Test Left Rear Door

Figure A-41: Test Vehicle Pre-Test Right Front Door

Figure A-42: Test Vehicle Post-Test Right Front Door

Figure A-43: Test Vehicle Pre-Test Right Rear Door

Figure A-44: Test Vehicle Post-Test Right Rear Door

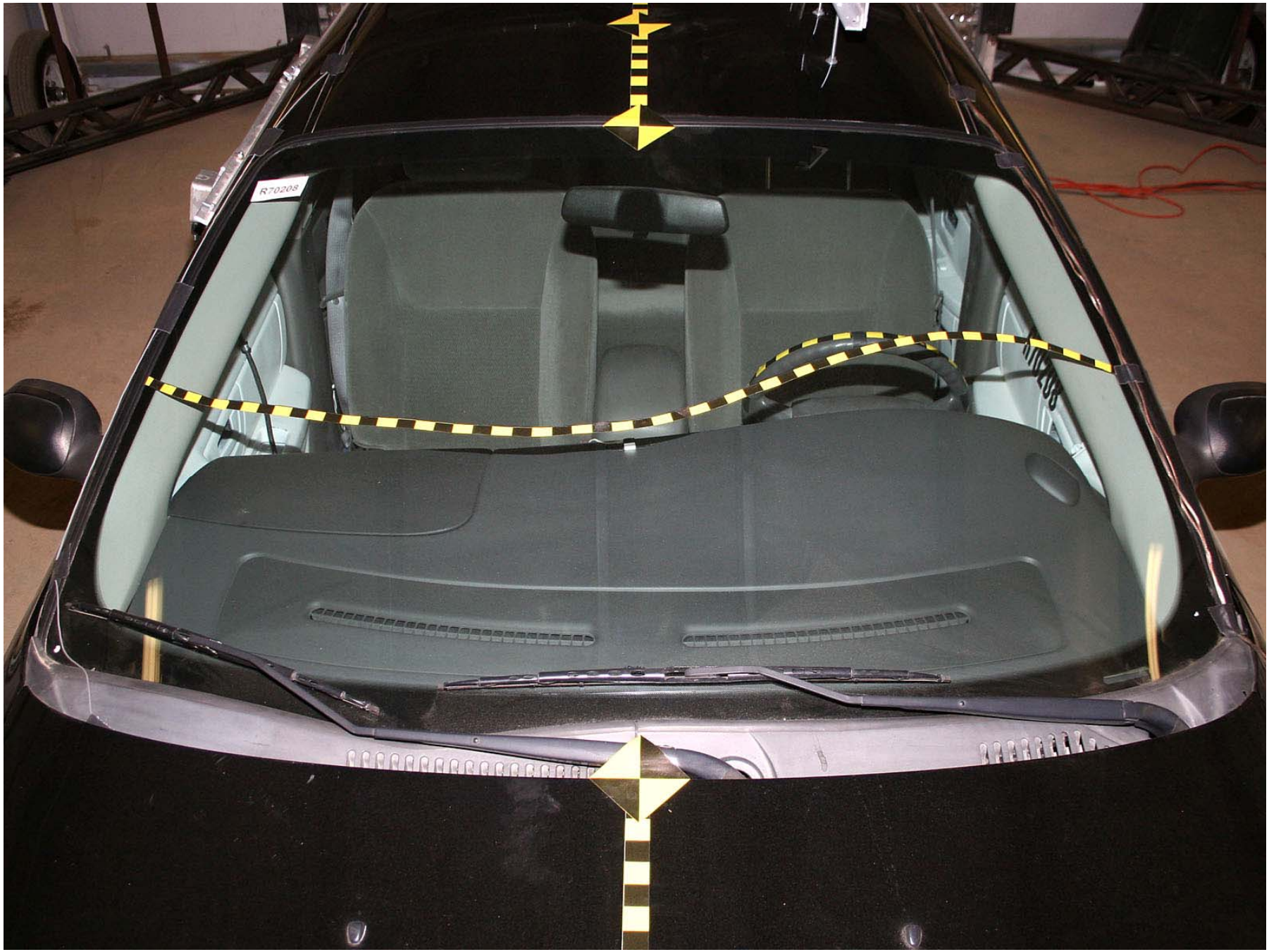

Figure A-45: Test Vehicle Pre-Test Windshield View

Figure A-46: Test Vehicle Post-Test Windshield View

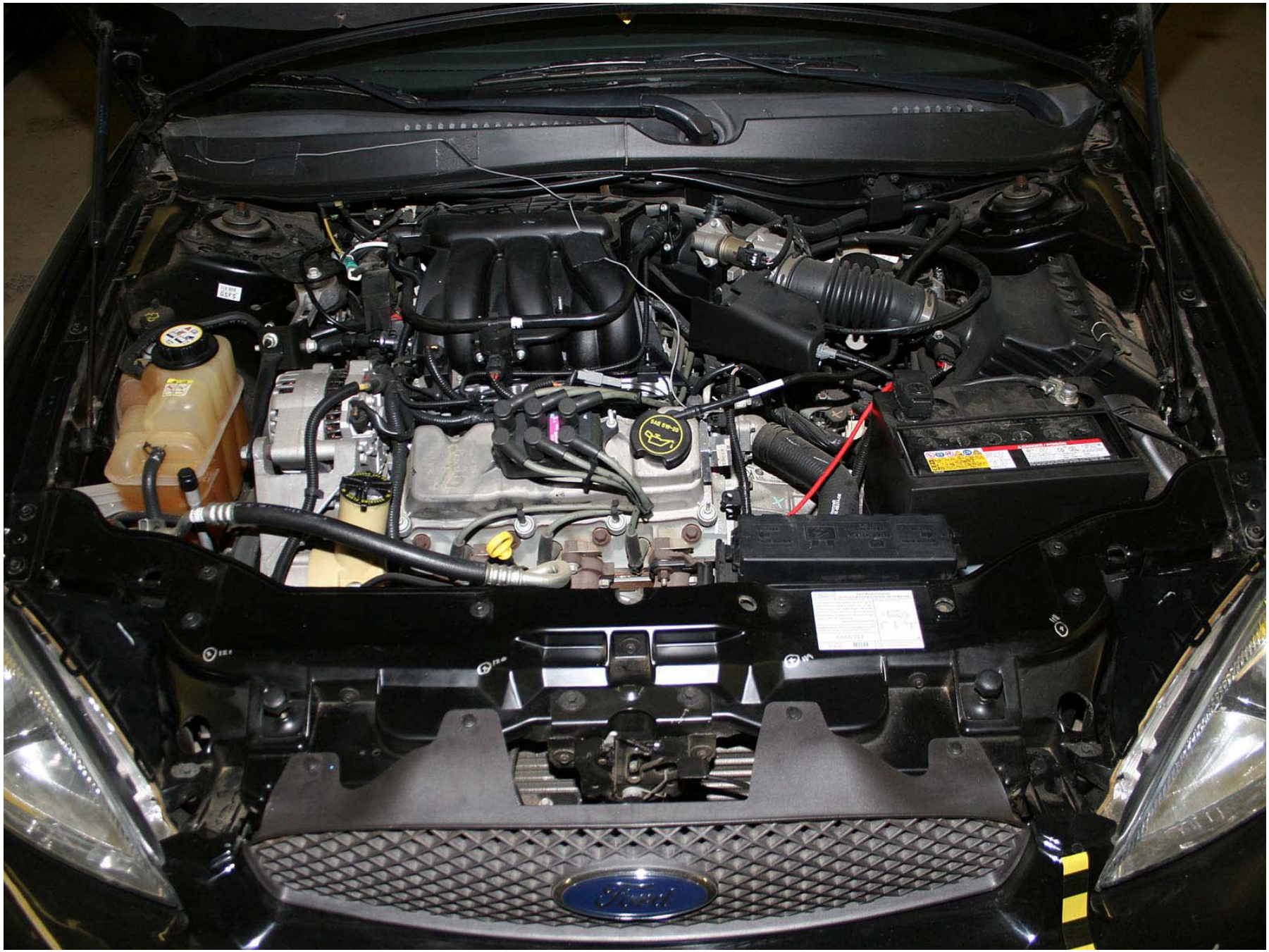

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Figure A-48: Test Vehicle Post-Test Engine Compartment View

Figure A-49: Test Vehicle Pre-Test Fuel Filler Cap View

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Figure A-52: Test Vehicle Post-Test Left Side A-Pillar Side View

Figure A-53: Test Vehicle Pre-Test Left Side A-Pillar Rear ¾ View

Figure A-54: Test Vehicle Post-Test Left Side A-Pillar Rear ¾ View

Figure A-55: Test Vehicle Pre-Test Left Side B-Pillar Side View

Figure A-56: Test Vehicle Post-Test Left Side B-Pillar Side View

Figure A-57: Test Vehicle Pre-Test Left Side B-Pillar Rear ¾ View

Figure A-58: Test Vehicle Post-Test Left Side B-Pillar Rear ¾ View

Figure A-59: Test Vehicle Pre-Test Left Side C-Pillar Side View

Figure A-60: Test Vehicle Post-Test Left Side C-Pillar Side View

Figure A-61: Test Vehicle Pre-Test Left Side C-Pillar Front ¾ View

Figure A-62: Test Vehicle Post-Test Left Side C-Pillar Front ¾ View

Figure A-63: Test Vehicle Pre-Test Left Front Sill Side View, Door Closed

Figure A-64: Test Vehicle Post-Test Left Front Sill Side View, Door Closed

Figure A-65: Test Vehicle Pre-Test Left Front Sill Side View, Door Open

Figure A-66: Test Vehicle Post-Test Left Front Sill Side View, Door Open

Figure A-67: Test Vehicle Pre-Test Left Front Sill Rear ¾ View, Door Closed

Figure A-68: Test Vehicle Post-Test Left Front Sill Rear ¾ View, Door Closed

Figure A-69: Test Vehicle Pre-Test Left Front Sill Rear ¾ View, Door Open

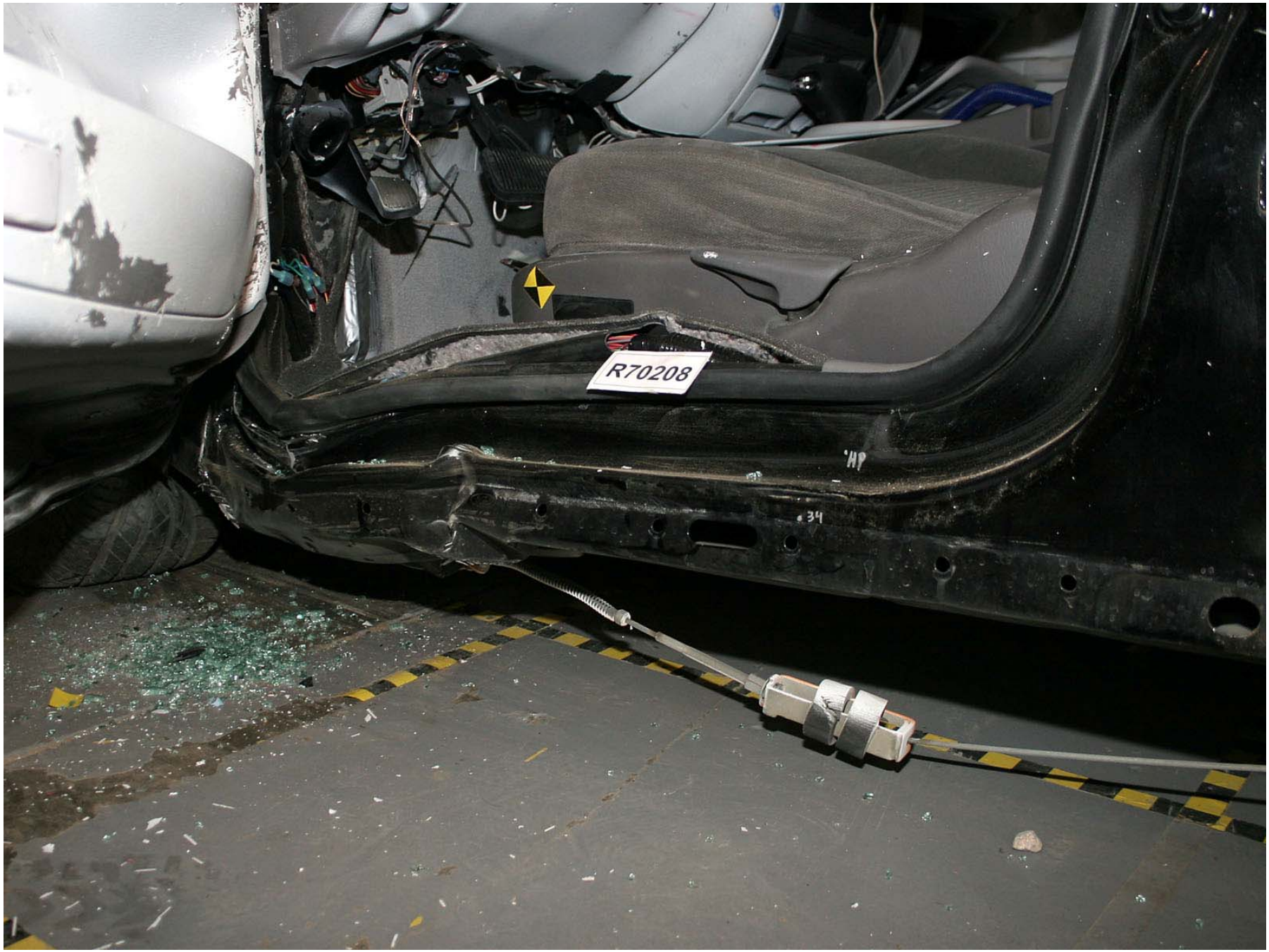

Figure A-70: Test Vehicle Post-Test Left Front Sill Rear ¾ View, Door Open

Figure A-71: Test Vehicle Pre-Test Left Rear Sill Side View, Door Closed

Figure A-72: Test Vehicle Post-Test Left Rear Sill Side View, Door Closed

Figure A-73: Test Vehicle Pre-Test Left Rear Sill Side View, Door Open

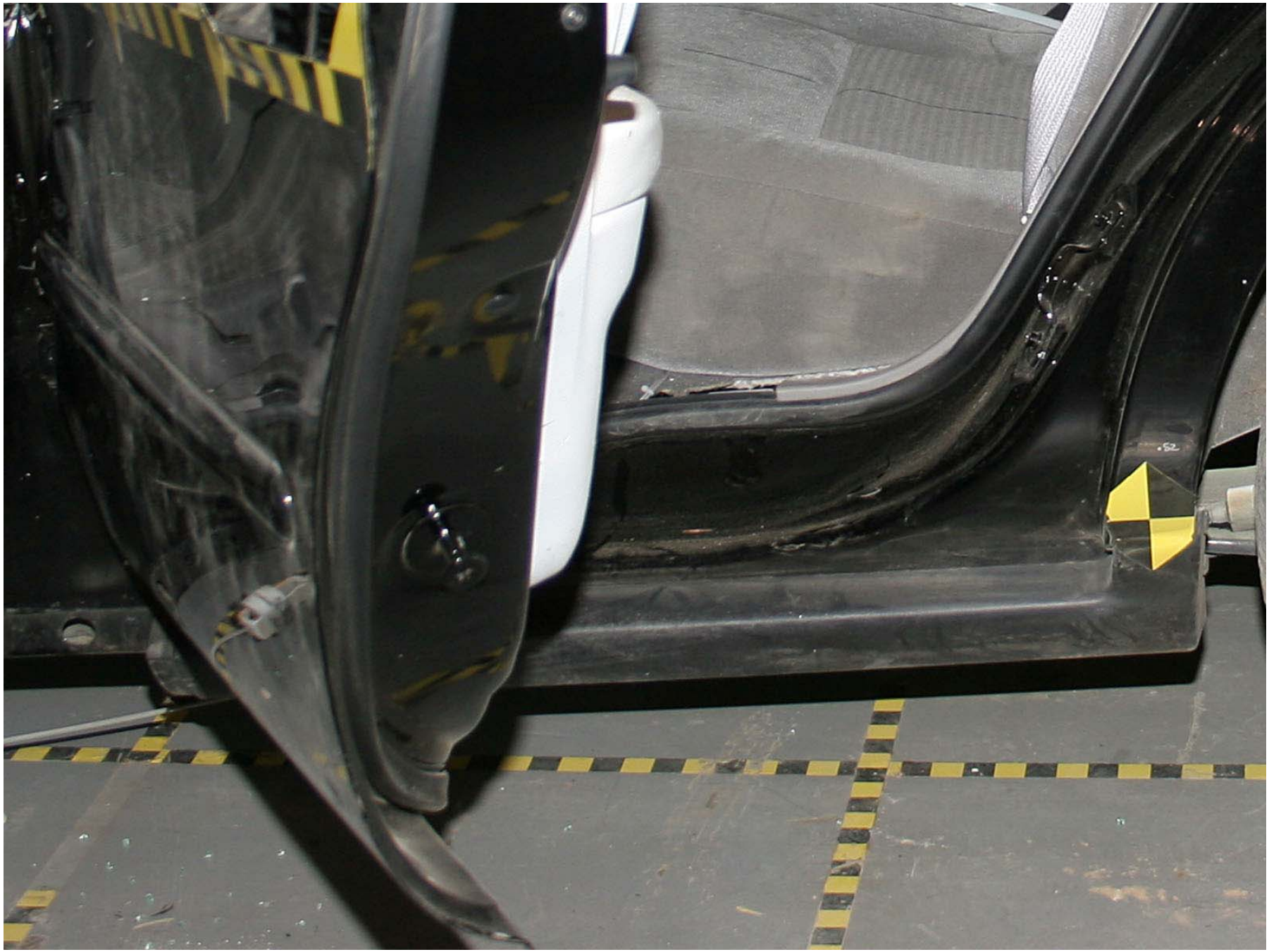

Figure A-74: Test Vehicle Post-Test Left Rear Sill Side View, Door Open

Figure A-75: Test Vehicle Pre-Test Left Rear Sill Rear ¾ View, Door Closed

Figure A-76: Test Vehicle Post-Test Left Rear Sill Rear ¾ View, Door Closed

Figure A-77: Test Vehicle Pre-Test Left Rear Sill Rear ¾ View, Door Open

Figure A-78: Test Vehicle Post-Test Left Rear Sill Rear ¾ View, Door Open

Figure A-79: Test Vehicle Pre-Test Right Side A-Pillar Side View

Figure A-80: Test Vehicle Post-Test Right Side A-Pillar Side View

Figure A-81: Test Vehicle Pre-Test Right Side A-Pillar Rear ¾ View

Figure A-82: Test Vehicle Post-Test Right Side A-Pillar Rear ¾ View

Figure A-83: Test Vehicle Pre-Test Right Side B-Pillar Side View

Figure A-84: Test Vehicle Post-Test Right Side B-Pillar Side View

Figure A-85: Test Vehicle Pre-Test Right Side B-Pillar Rear ¾ View

Figure A-86: Test Vehicle Post-Test Right Side B-Pillar Rear ¾ View

Figure A-87: Test Vehicle Pre-Test Right Side C-Pillar Side View

Figure A-88: Test Vehicle Post-Test Right Side C-Pillar Side View

Figure A-89: Test Vehicle Pre-Test Right Side C-Pillar Front ¾ View

Figure A-90: Test Vehicle Post-Test Right Side C-Pillar Front ¾ View

Figure A-91: Test Vehicle Pre-Test Right Front Sill Side View, Door Closed

Figure A-92: Test Vehicle Post-Test Right Front Sill Side View, Door Closed

Figure A-93: Test Vehicle Pre-Test Right Front Sill Side View, Door Open

Figure A-94: Test Vehicle Post-Test Right Front Sill Side View, Door Open

Figure A-95: Test Vehicle Pre-Test Right Front Sill Rear ¾ View, Door Closed

Figure A-96: Test Vehicle Post-Test Right Front Sill Rear ¾ View, Door Closed

Figure A-97: Test Vehicle Pre-Test Right Front Sill Rear ¾ View, Door Open

Figure A-98: Test Vehicle Post-Test Right Front Sill Rear ¾ View, Door Open

Figure A-99: Test Vehicle Pre-Test Right Rear Sill Side View, Door Closed

Figure A-100: Test Vehicle Post-Test Right Rear Sill Side View, Door Closed

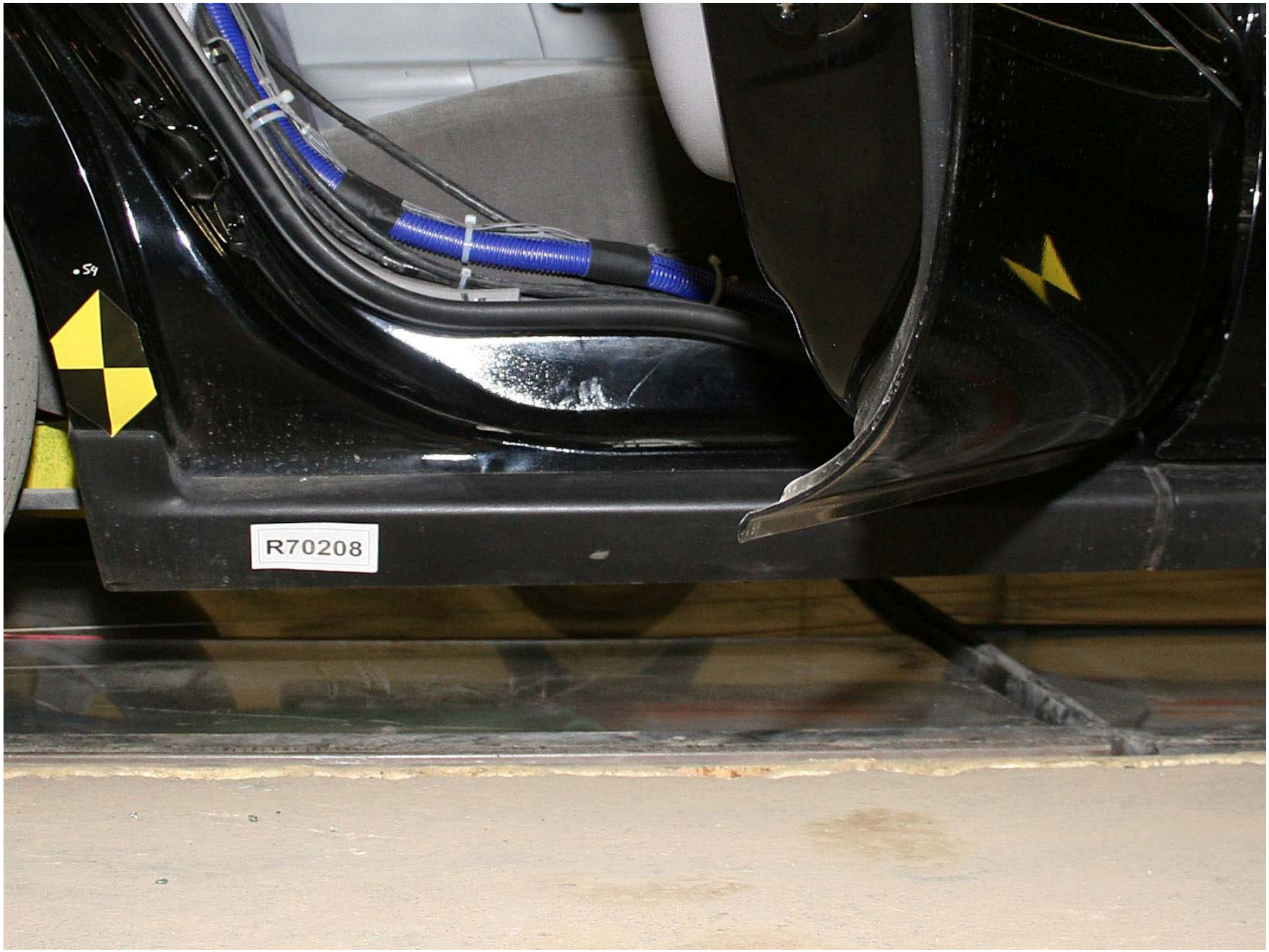

Figure A-101: Test Vehicle Pre-Test Right Rear Sill Side View, Door Open

Figure A-102: Test Vehicle Post-Test Right Rear Sill Side View, Door Open

Figure A-103: Test Vehicle Pre-Test Right Rear Sill Rear ¾ View, Door Closed

Figure A-104: Test Vehicle Post-Test Right Rear Sill Rear ¾ View, Door Closed

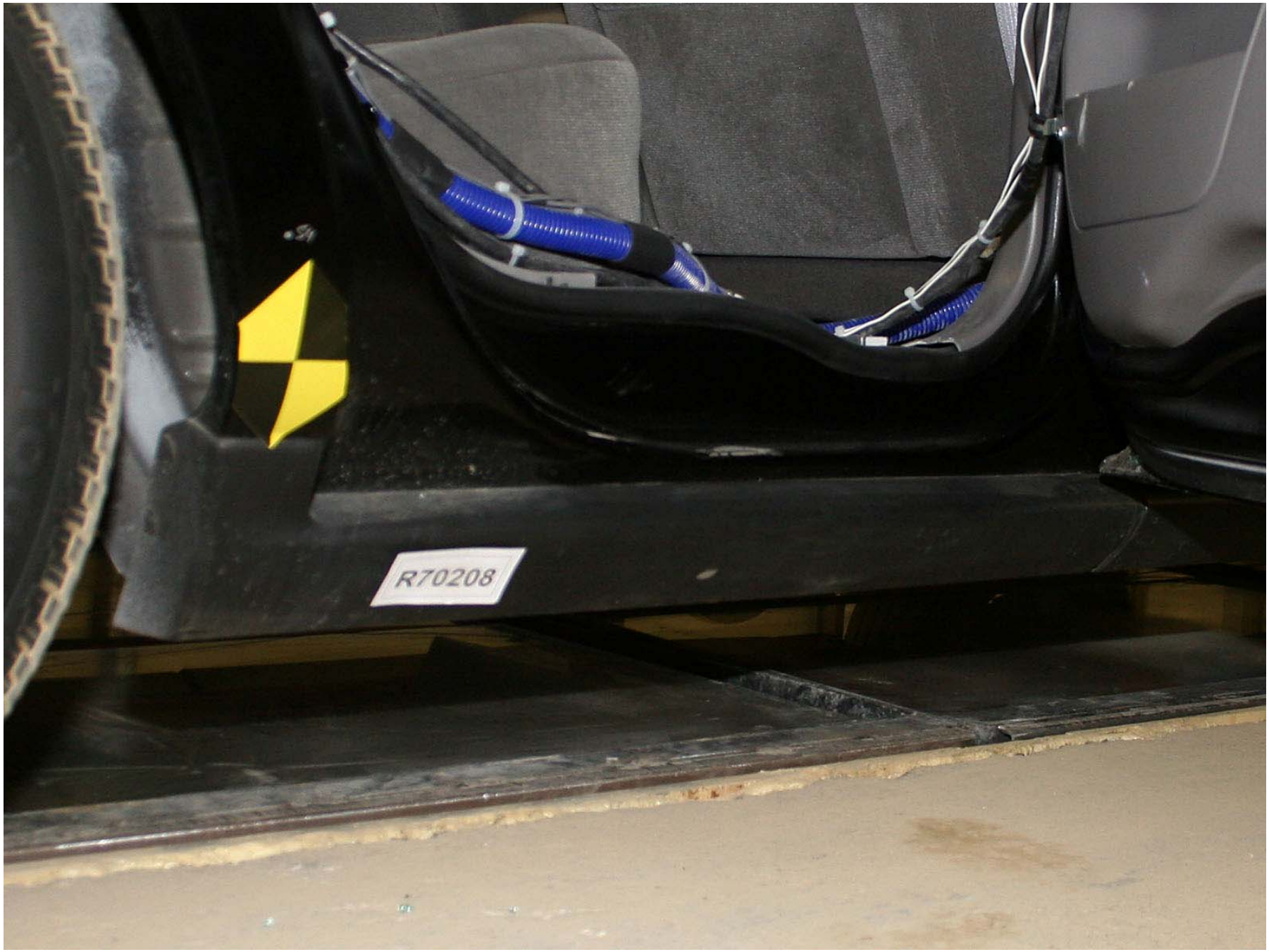

Figure A-105: Test Vehicle Pre-Test Right Rear Sill Rear ¾ View, Door Open

Figure A-106: Test Vehicle Post-Test Right Rear Sill Rear ¾ View, Door Open

Figure A-107: Test Vehicle Pre-Test Left Front Wheel Side View

Figure A-108: Test Vehicle Post-Test Left Front Wheel Side View

Figure A-109: Test Vehicle Pre-Test Left Front Wheel Front ¾ View

Figure A-110: Test Vehicle Post-Test Left Front Wheel Front ¾ View

Figure A-111: Test Vehicle Pre-Test Left Front Wheel Rear ¾ View

Figure A-112: Test Vehicle Post-Test Left Front Wheel Rear ¾ View

Figure A-113: Test Vehicle Pre-Test Left Front Wheel Top View

Figure A-114: Test Vehicle Post-Test Left Front Wheel Top View

Figure A-115: Test Vehicle Post-Test Left Front Wheel A-Pillar/Rocker Contact

Figure A-116: Test Vehicle Post-Test Left Front Wheel A-Pillar/Rocker Contact

Figure A-117: Test Vehicle Post-Test Left Front Wheel A-Pillar/Rocker Contact

Figure A-118: Test Vehicle Post-Test Left Front Wheel A-Pillar/Rocker Contact

Figure A-119: Test Vehicle Post-Test Left Front Wheel A-Pillar/Rocker Contact

Figure A-120: Test Vehicle Post-Test Left Front Wheel Damage (Outside)

Figure A-121: Test Vehicle Post-Test Left Front Wheel Damage (Inside)

Figure A-122: Test Vehicle Pre-Test Right Front Wheel Side View

Figure A-123: Test Vehicle Post-Test Right Front Wheel Side View

Figure A-124: Test Vehicle Pre-Test Right Front Wheel Front ¾ View

Figure A-125: Test Vehicle Post-Test Right Front Wheel Front ¾ View

Figure A-126: Test Vehicle Pre-Test Right Front Wheel Rear ¾ View

Figure A-127: Test Vehicle Post-Test Right Front Wheel Rear ¾ View

Figure A-128: Test Vehicle Pre-Test Right Front Wheel Top View

Figure A-129: Test Vehicle Post-Test Right Front Wheel Top View

Figure A-130: Test Vehicle Post-Test Right Front Wheel Damage (Outside)

Figure A-131: Test Vehicle Post-Test Right Front Wheel Damage (Inside)

Figure A-132: Test Vehicle Pre-Test Left Front Wheel Well (Tire On)

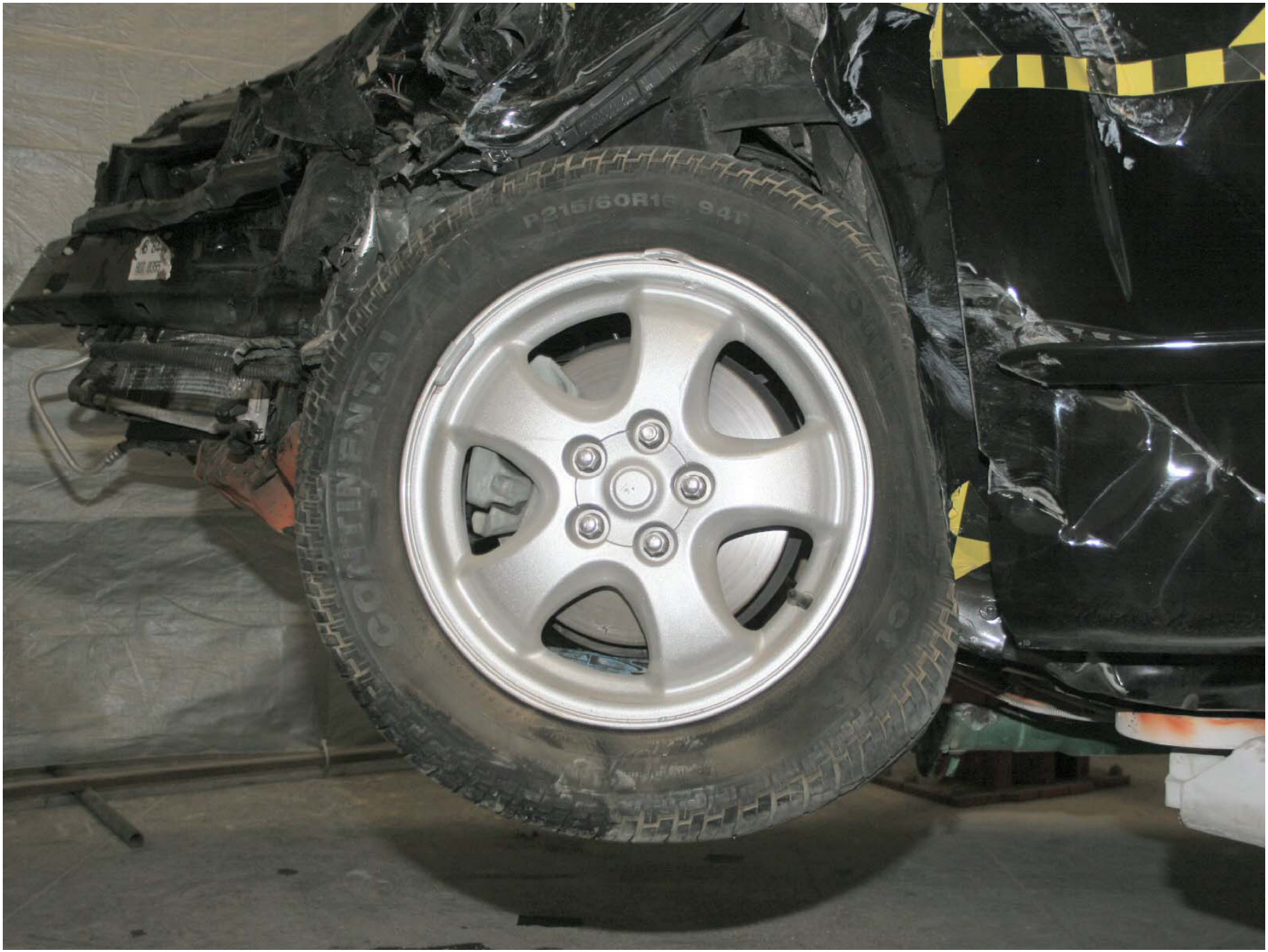

Figure A-133: Test Vehicle Post-Test Left Front Wheel Well (Tire On)

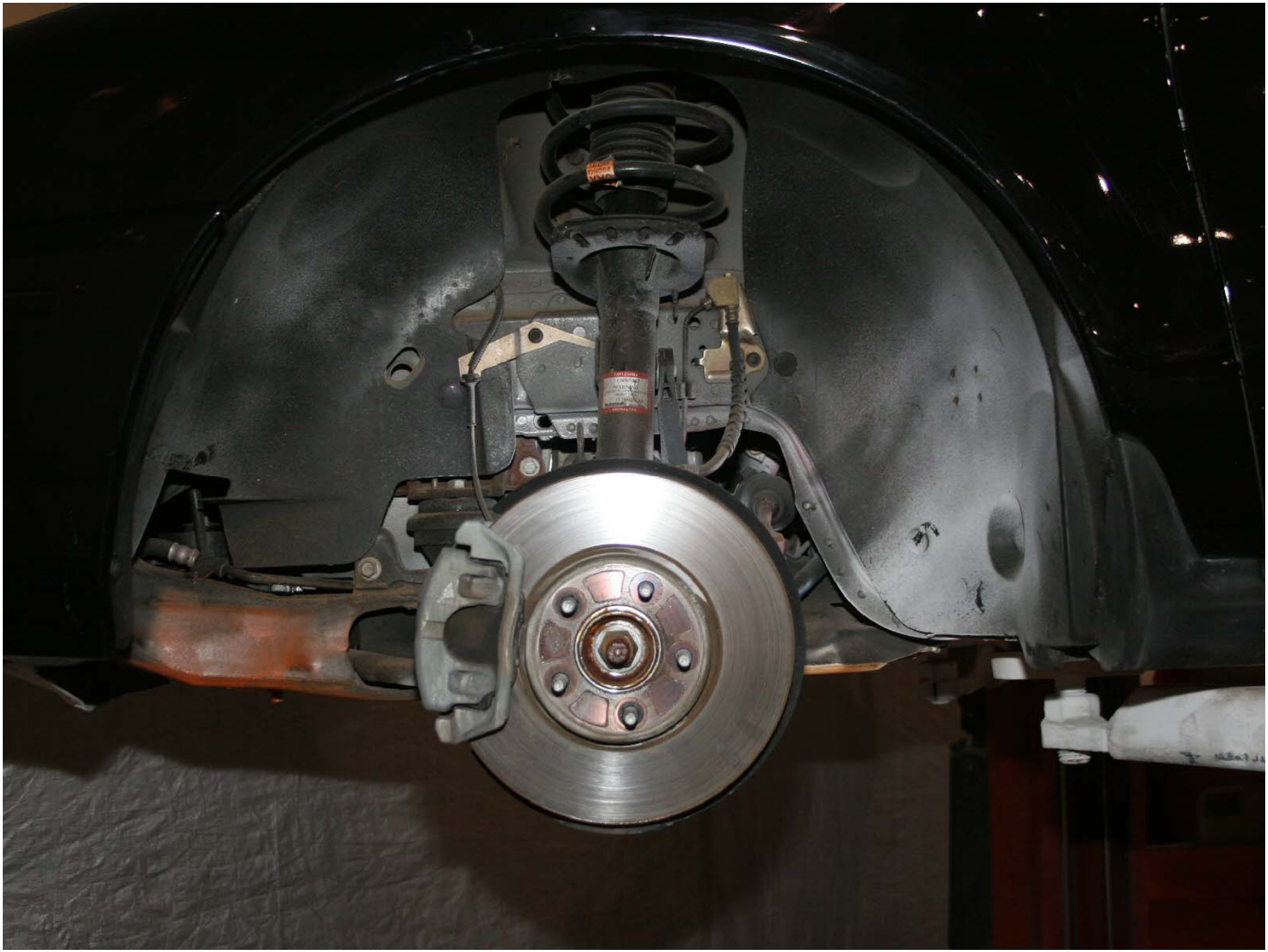

Figure A-134: Test Vehicle Pre-Test Left Front Wheel Well (Tire Off)

Figure A-135: Test Vehicle Post-Test Left Front Wheel Well (Tire Off)

Figure A-136: Test Vehicle Pre-Test Left Front Wheel Well (Tire Off), Inner Fender Removed

Figure A-137: Test Vehicle Post-Test Left Front Wheel Well (Tire Off), Inner Fender Removed

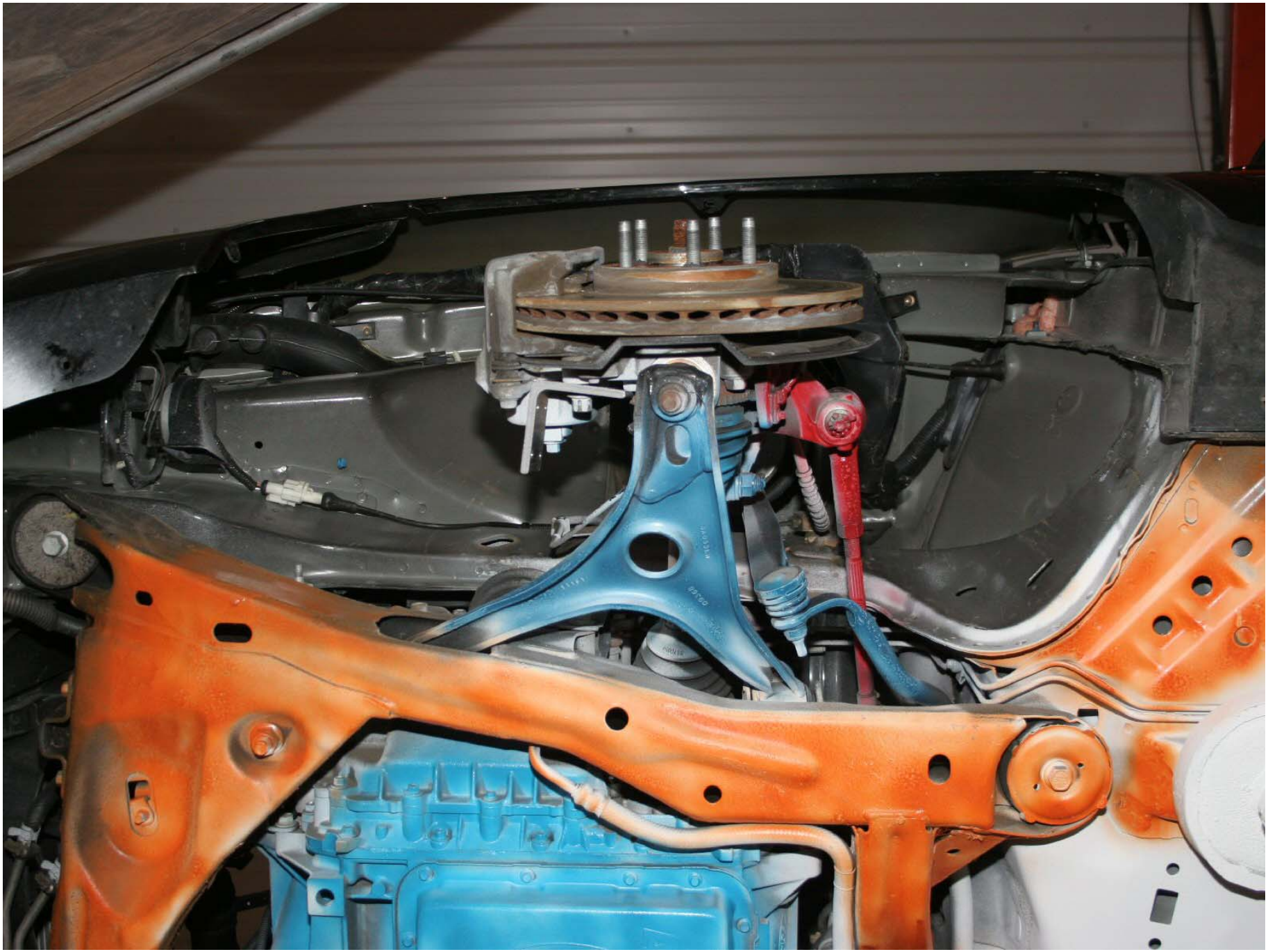

Figure A-138: Test Vehicle Pre-Test Left Inner Fender Well View

Figure A-139: Test Vehicle Post-Test Left Inner Fender Well View

Figure A-140: Test Vehicle Pre-Test Left Inner Fender Well View

Figure A-141: Test Vehicle Post-Test Left Inner Fender Well View

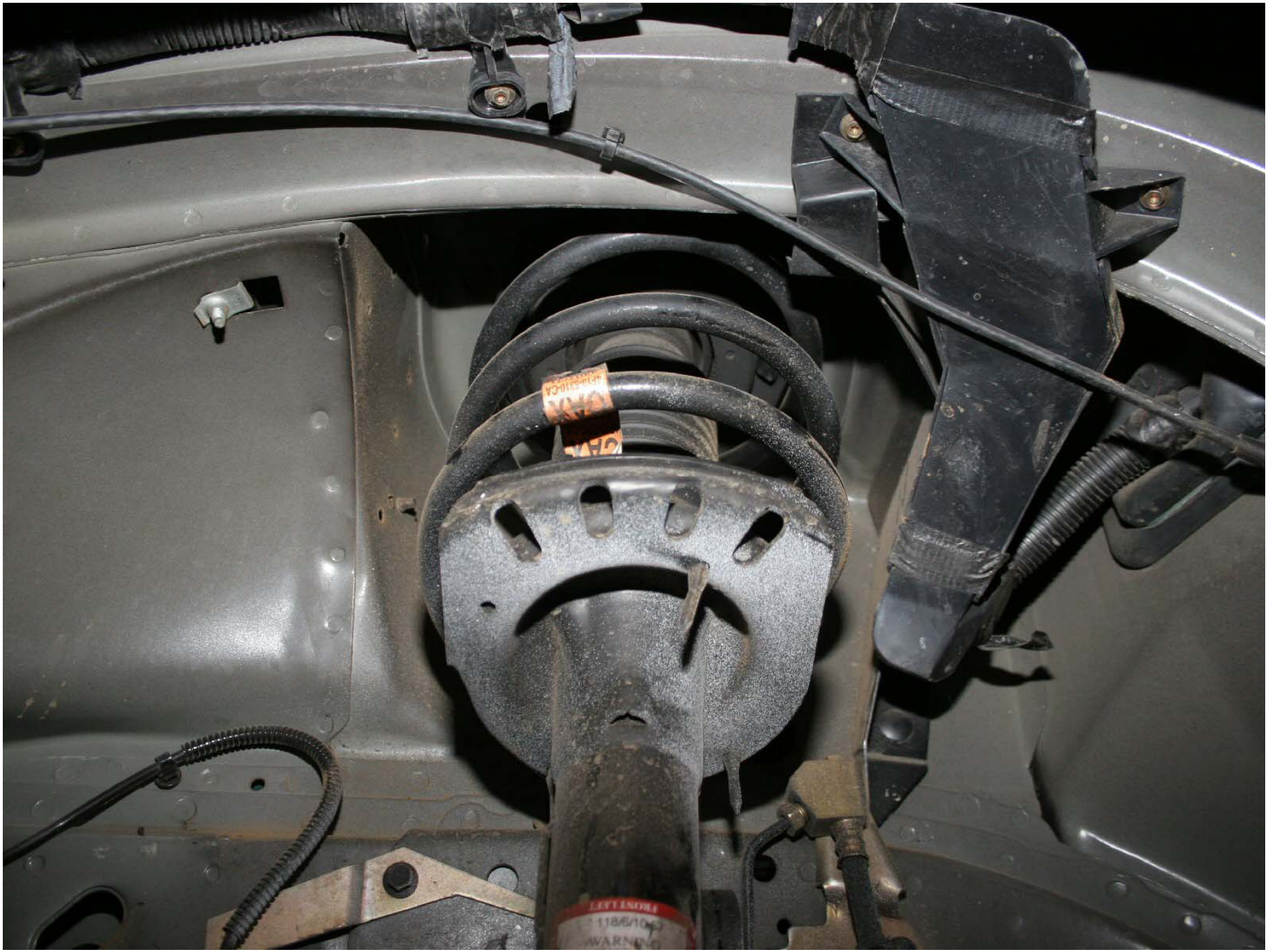

Figure A-142: Test Vehicle Pre-Test Left Inner Fender Well View

Figure A-143: Test Vehicle Post-Test Left Inner Fender Well View

Figure A-144: Test Vehicle Pre-Test Top Fender View

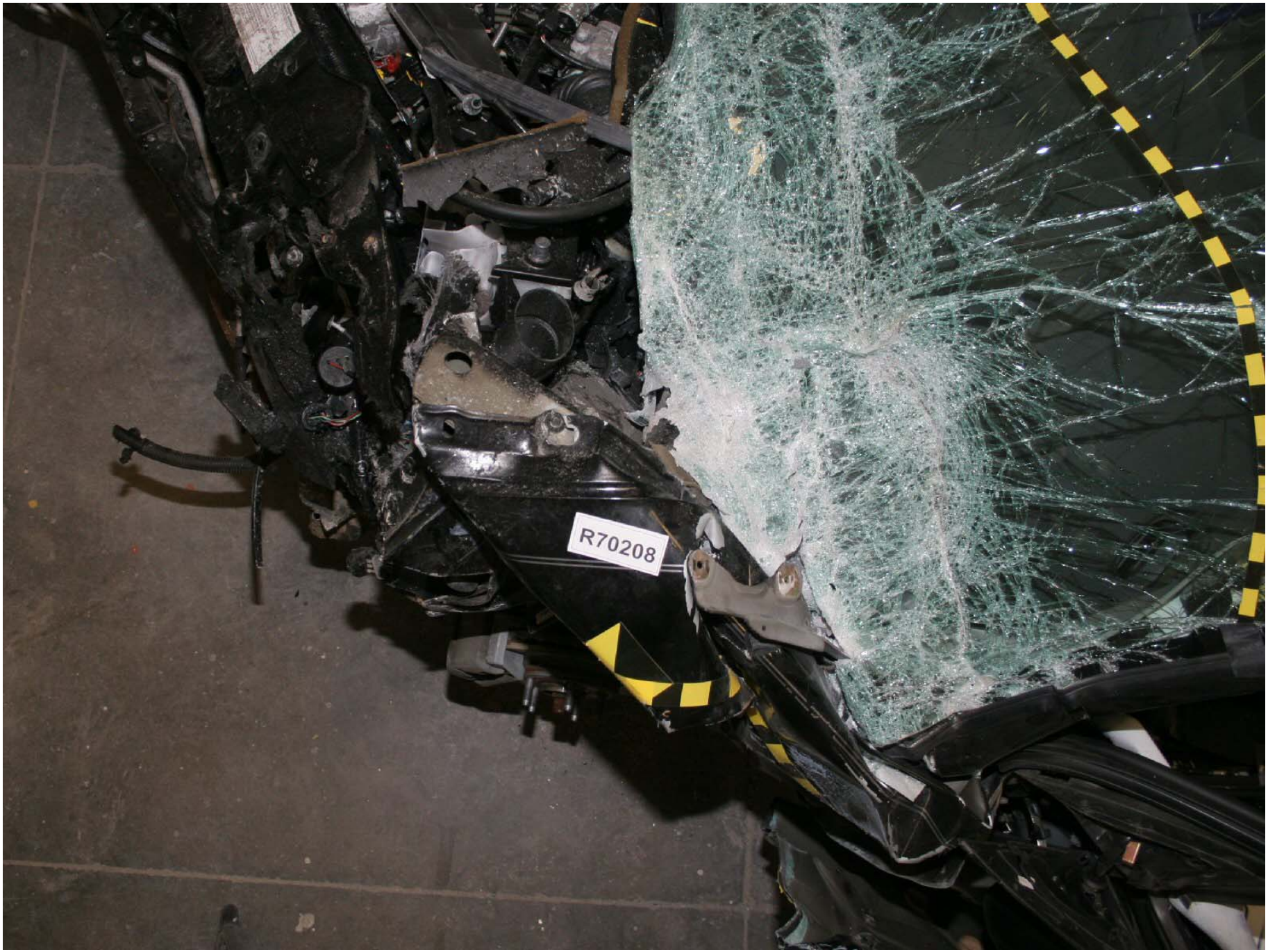

Figure A-145: Test Vehicle Post-Test Top Fender View

Figure A-146: Test Vehicle Pre-Test Left Front Frame Rail View

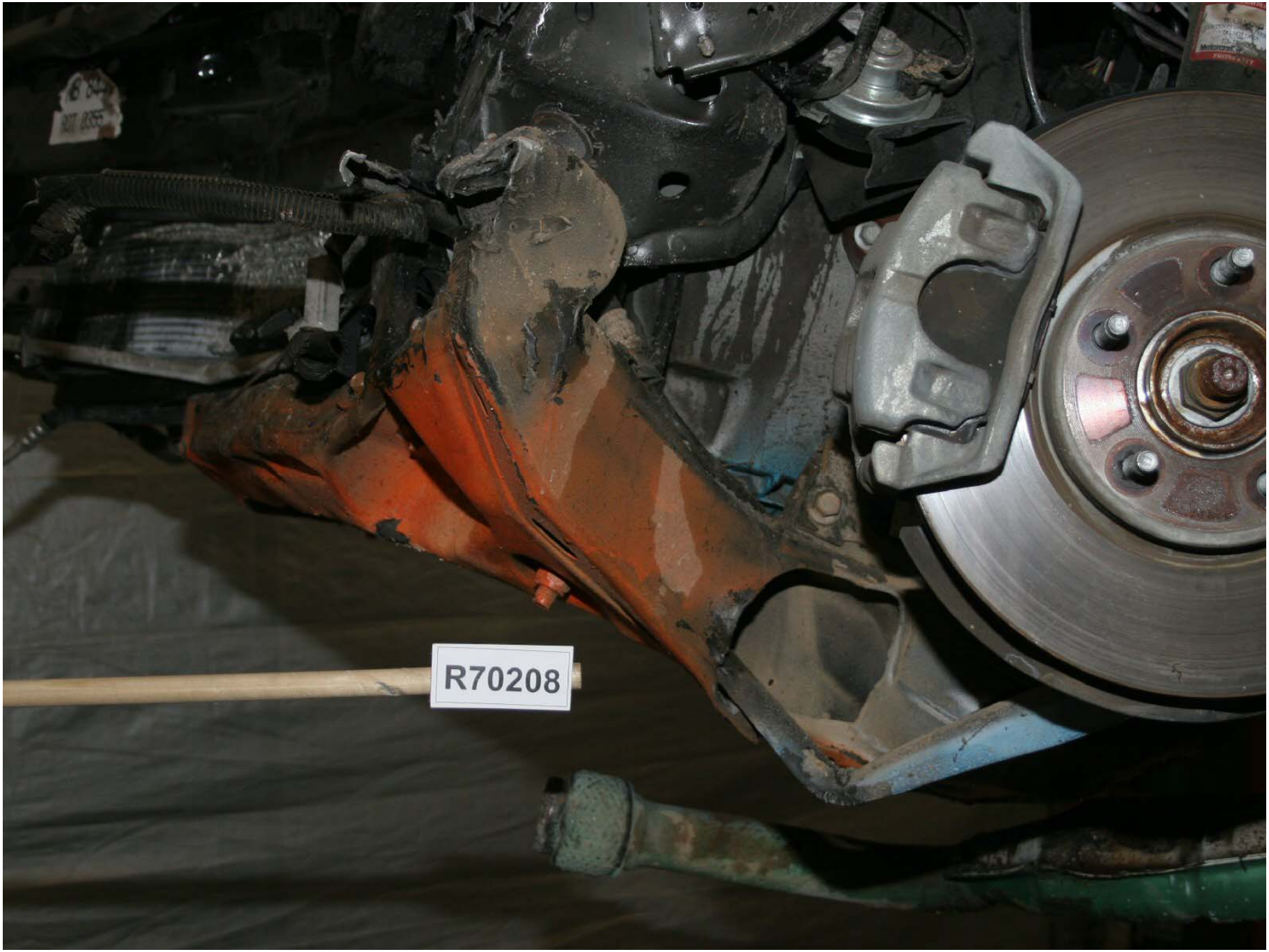

Figure A-147: Test Vehicle Post-Test Left Front Frame Rail View

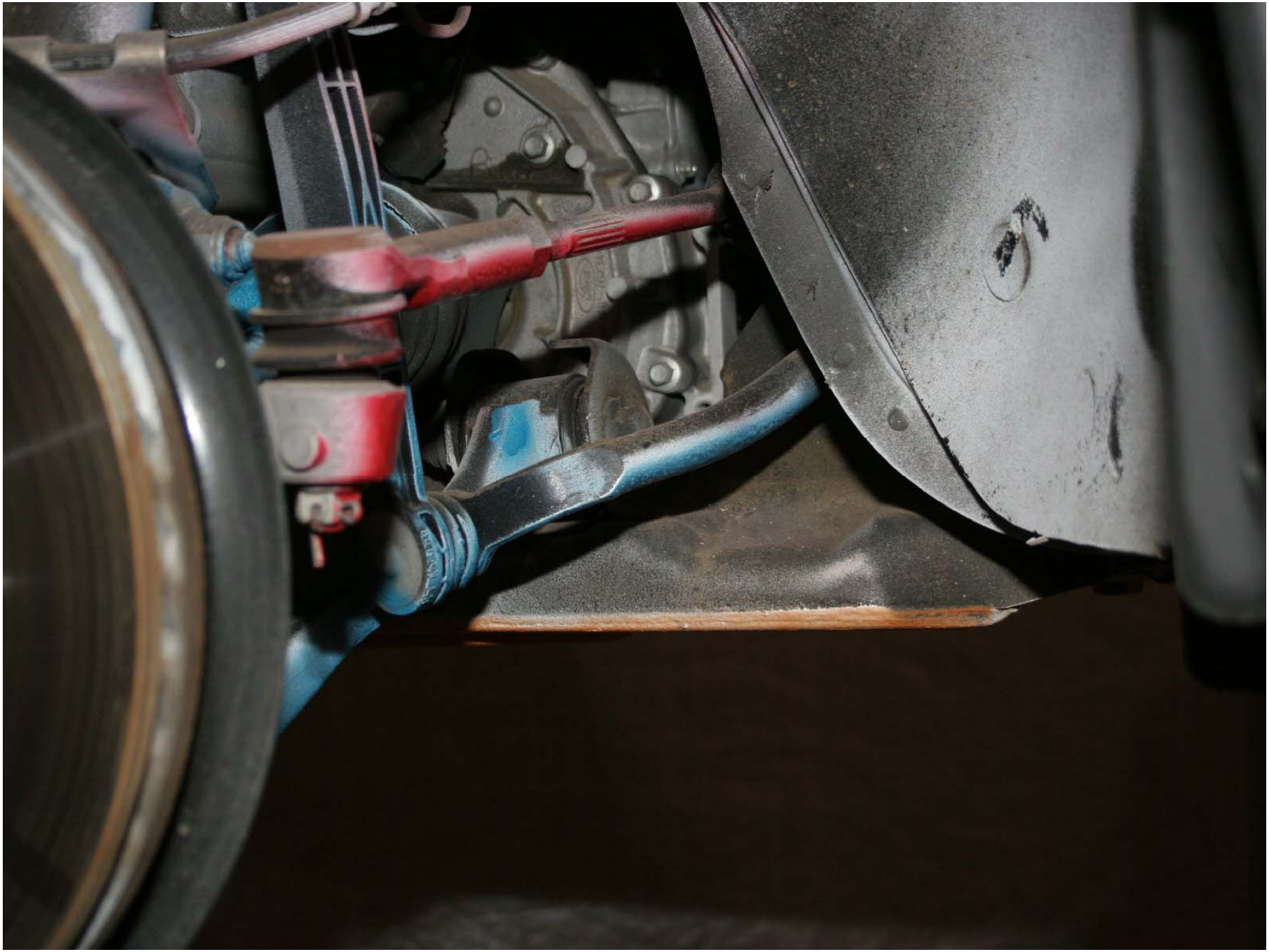

Figure A-148: Test Vehicle Pre-Test Left Front Frame Rail View

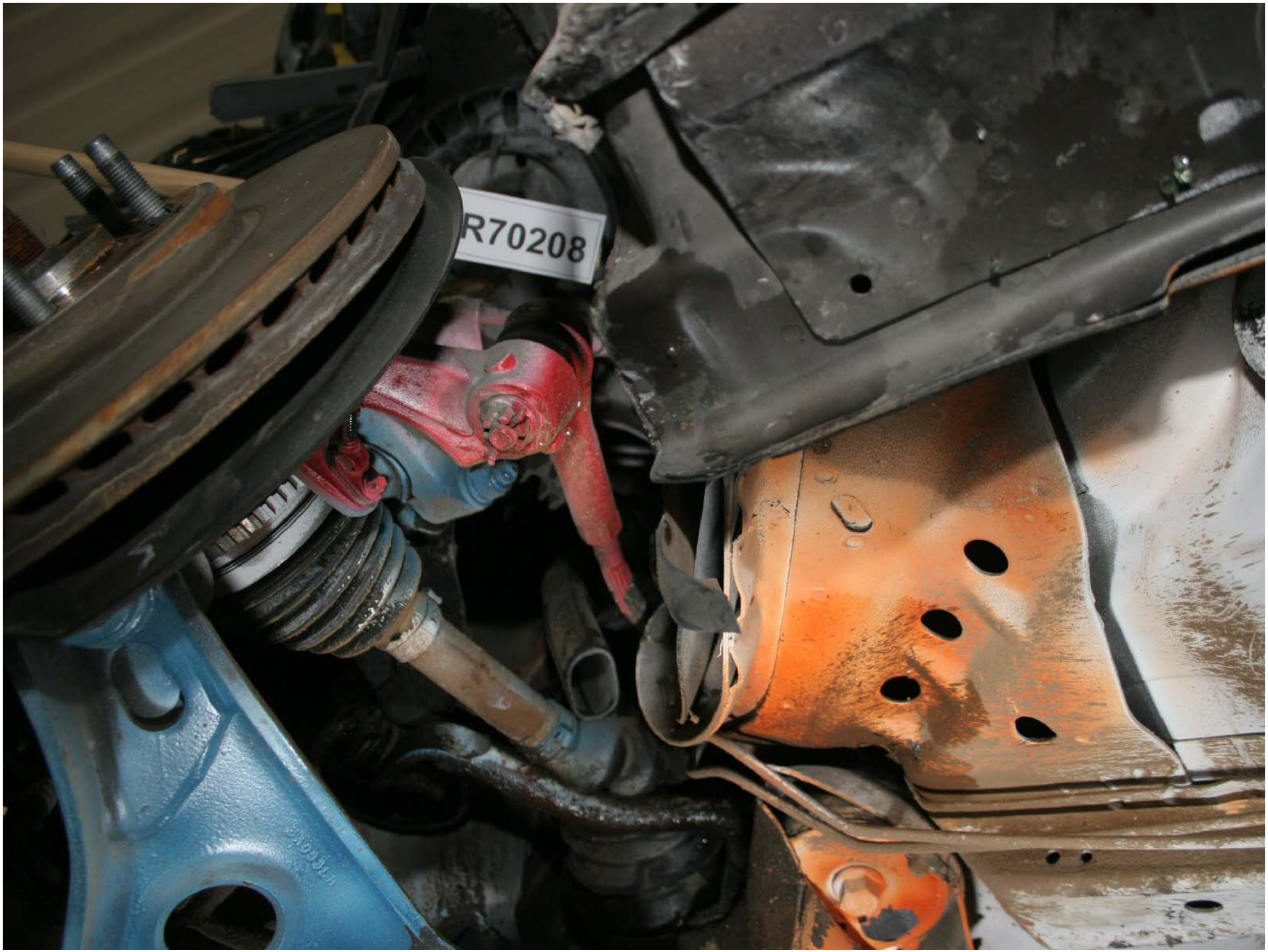

Figure A-149: Test Vehicle Post-Test Left Front Frame Rail View

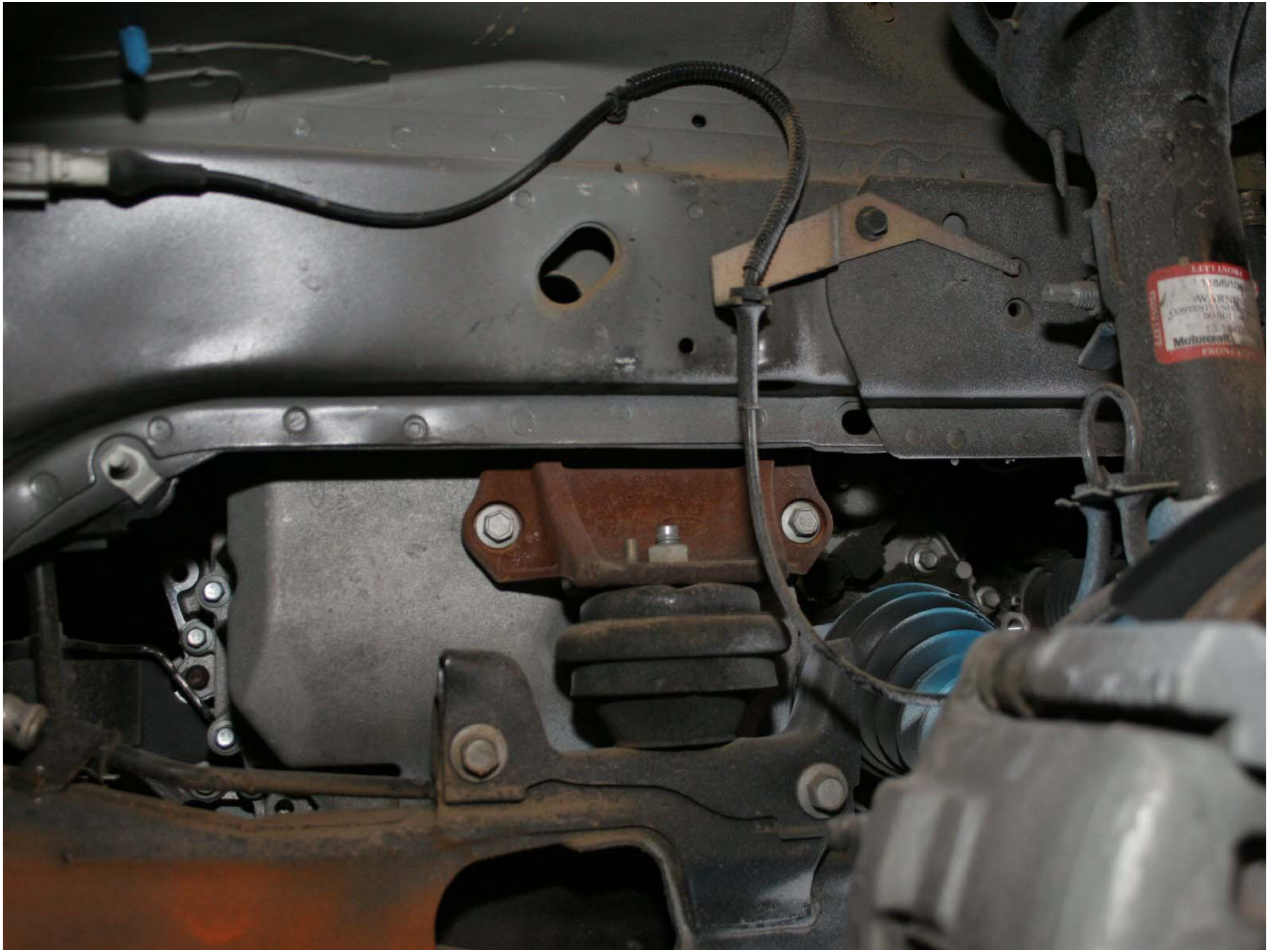

Figure A-150: Test Vehicle Pre-Test Left Front Frame Rail View

Figure A-151: Test Vehicle Post-Test Left Front Frame Rail View

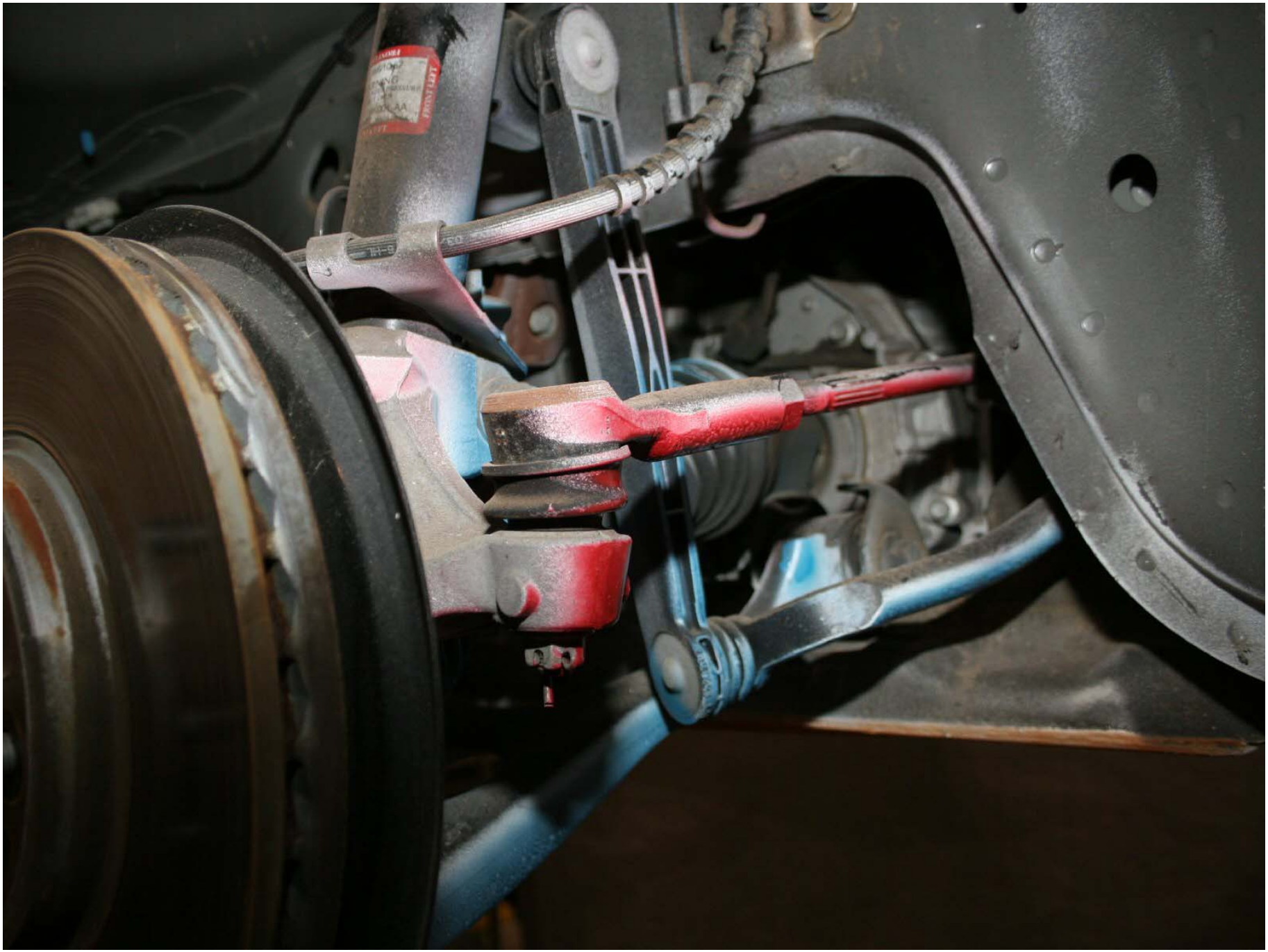

Figure A-152: Test Vehicle Pre-Test Left Side Tie Rod and Sway Bar Attachments Points

Figure A-153: Test Vehicle Post-Test Left Side Tie Rod and Sway Bar Attachments Points

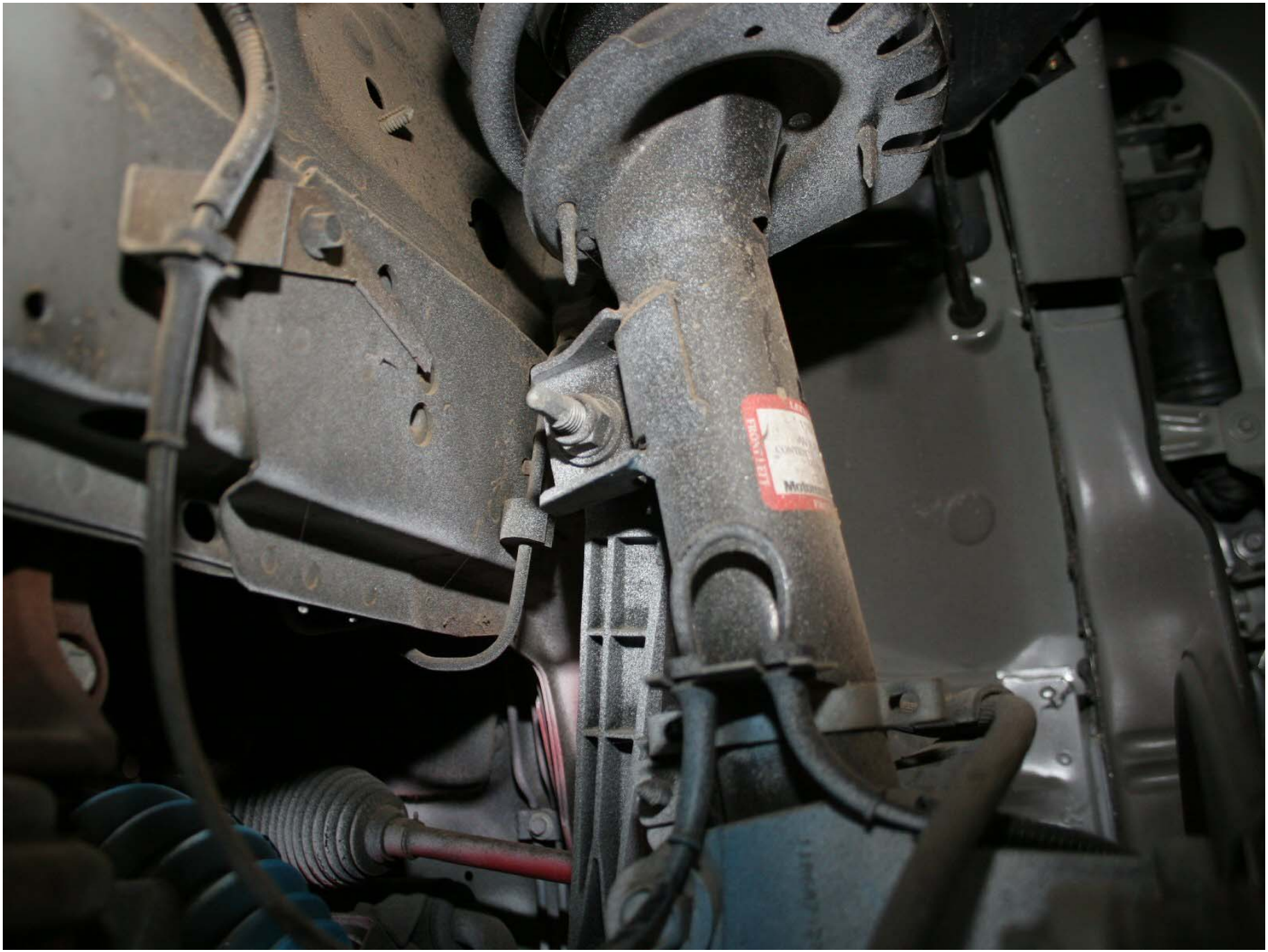

Figure A-154: Test Vehicle Pre-Test Left Side Upper Sway Bar Attachment Point

Figure A-155: Test Vehicle Post-Test Left Side Upper Sway Bar Attachment Point

Figure A-156: Test Vehicle Pre-Test Left Side Frame to A-Pillar Joint

Figure A-157: Test Vehicle Post-Test Left Side Frame to A-Pillar Joint

Figure A-158: Test Vehicle Pre-Test Left Side Crush Initiators

Figure A-159: Test Vehicle Post-Test Left Side Crush Initiators

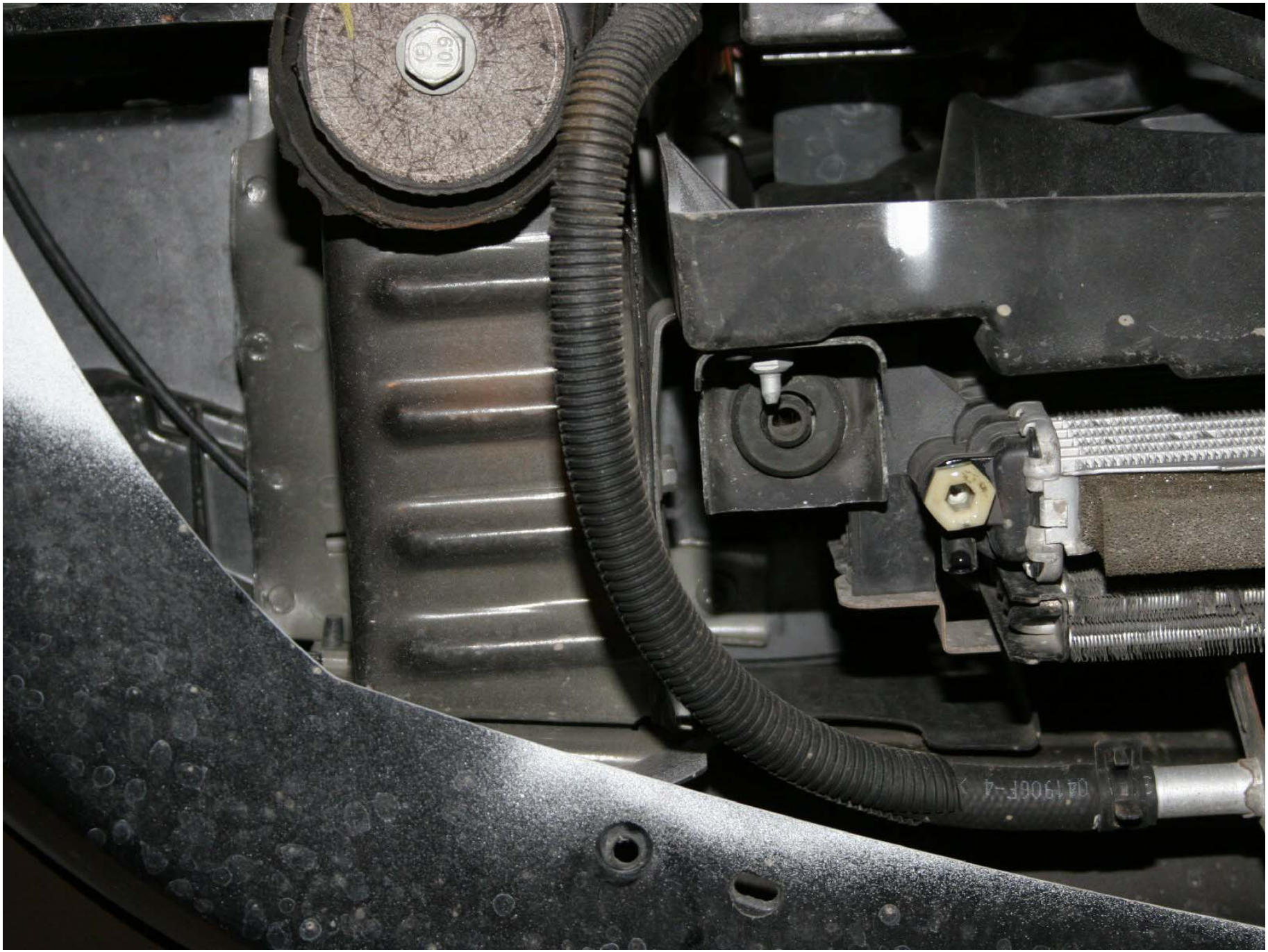

Figure A-160: Test Vehicle Pre-Test Left Side Crush Initiators

Figure A-161: Test Vehicle Post-Test Left Side Crush Initiators

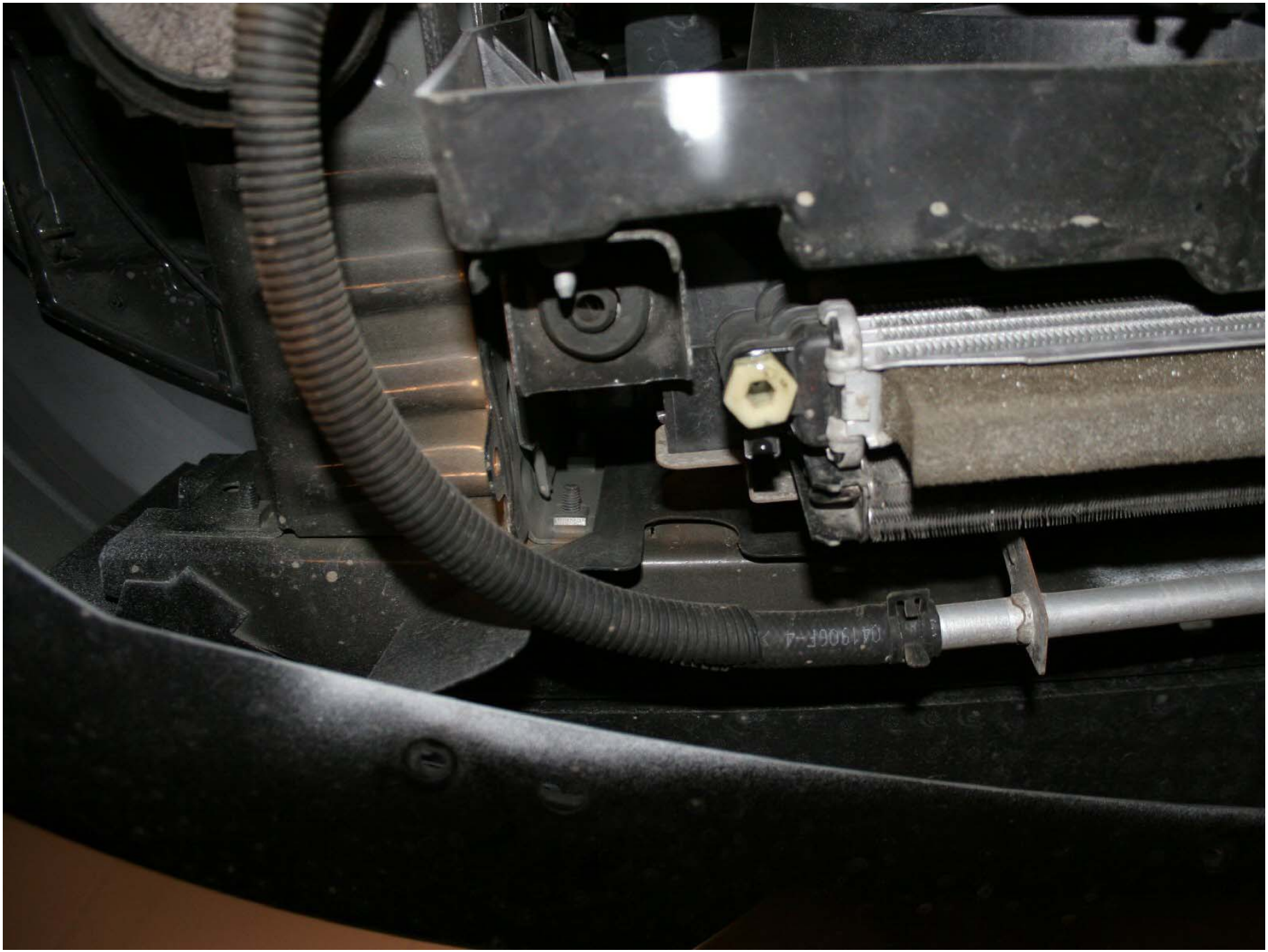

Figure A-162: Test Vehicle Pre-Test Left Side Bumper Attachment Point

Figure A-163: Test Vehicle Post-Test Left Side Bumper Attachment Point

Figure A-164: Test Vehicle Pre-Test Left Front Sub-Frame Mounting Point

Figure A-165: Test Vehicle Post-Test Left Front Sub-Frame Mounting Point

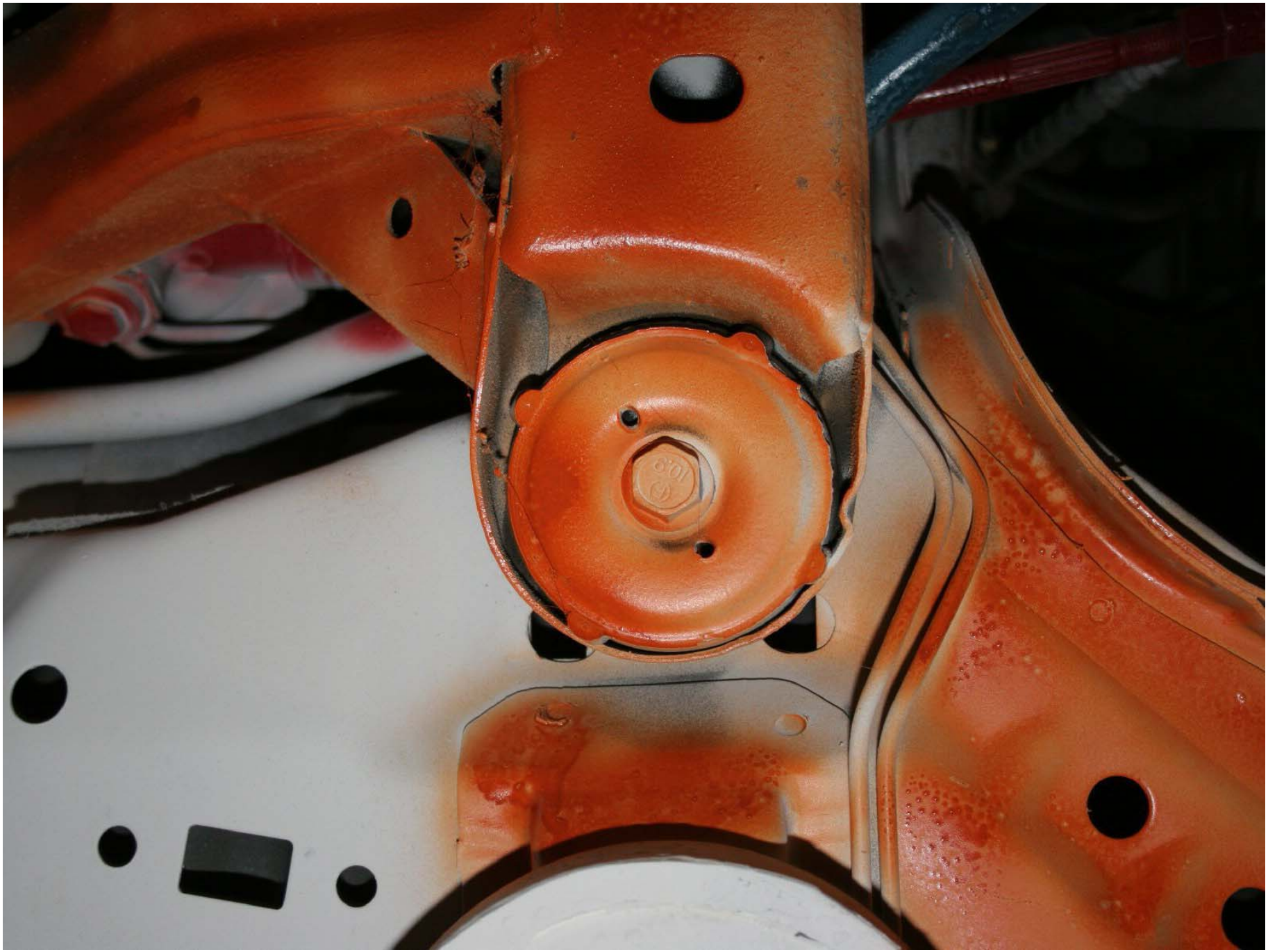

Figure A-166: Test Vehicle Pre-Test Left Rear Sub-Frame Mounting Point

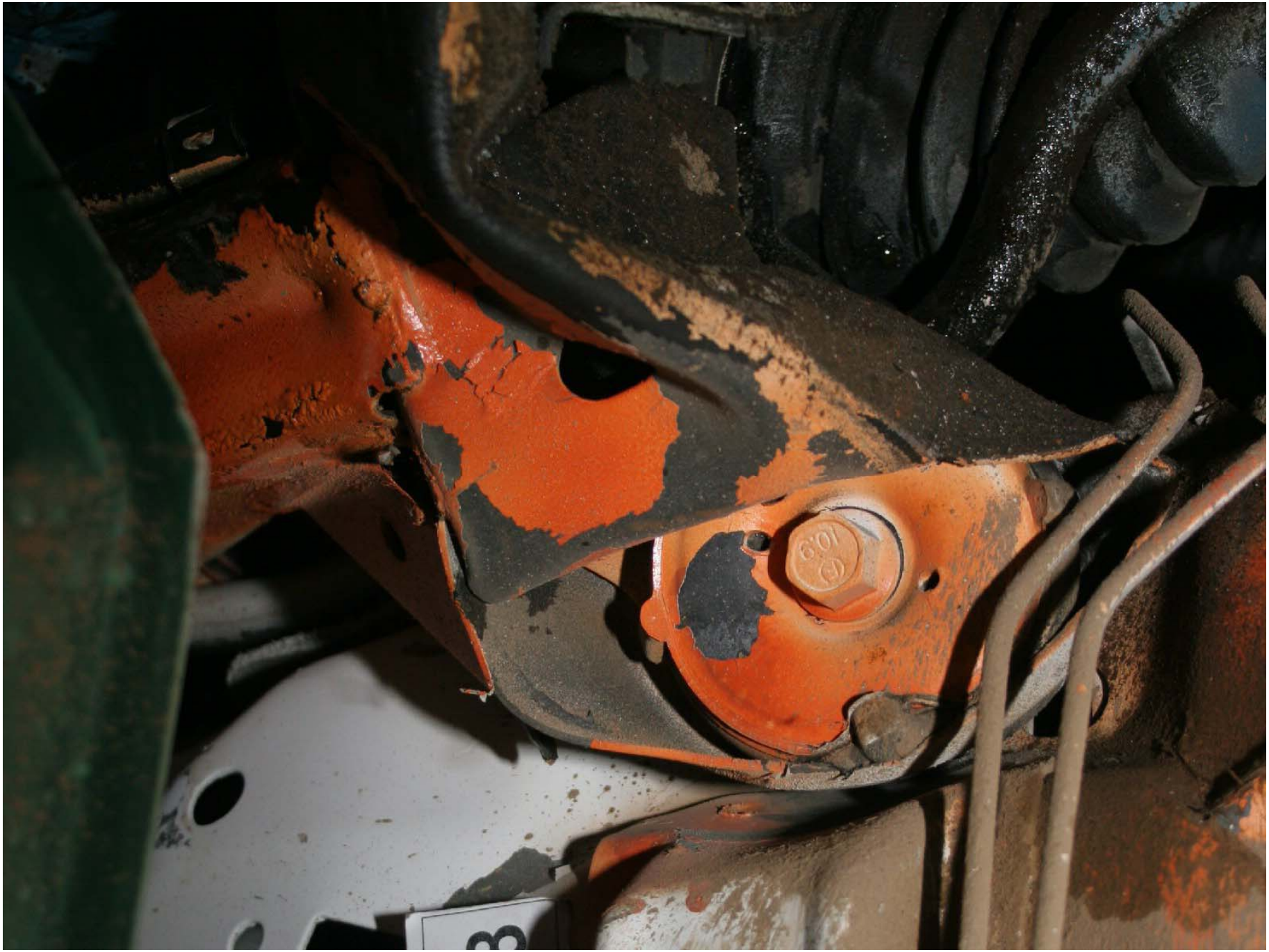

Figure A-167: Test Vehicle Post-Test Left Rear Sub-Frame Mounting Point

Figure A-168: Test Vehicle Pre-Test Right Front Wheel Well (Tire On)

Figure A-169: Test Vehicle Post-Test Right Front Wheel Well (Tire On)

Figure A-170: Test Vehicle Pre-Test Right Front Wheel Well (Tire Off)

Figure A-171: Test Vehicle Post-Test Right Front Wheel Well (Tire Off)

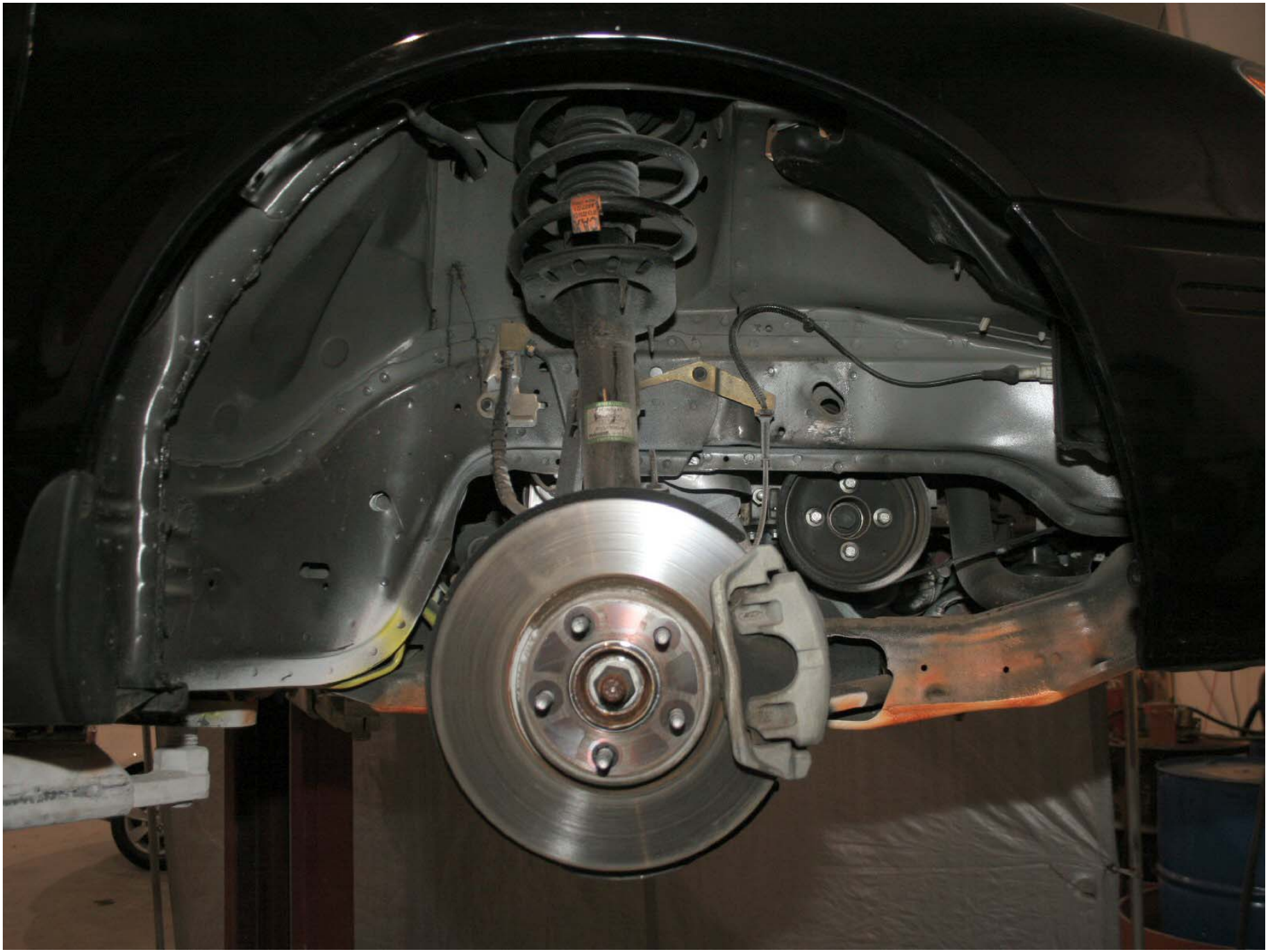

Figure A-172: Test Vehicle Pre-Test Right Front Wheel Well (Tire Off), Inner Fender Removed

Figure A-173: Test Vehicle Post-Test Right Front Wheel Well (Tire Off), Inner Fender Removed

Figure A-174: Test Vehicle Pre-Test Right Inner Fender Well View

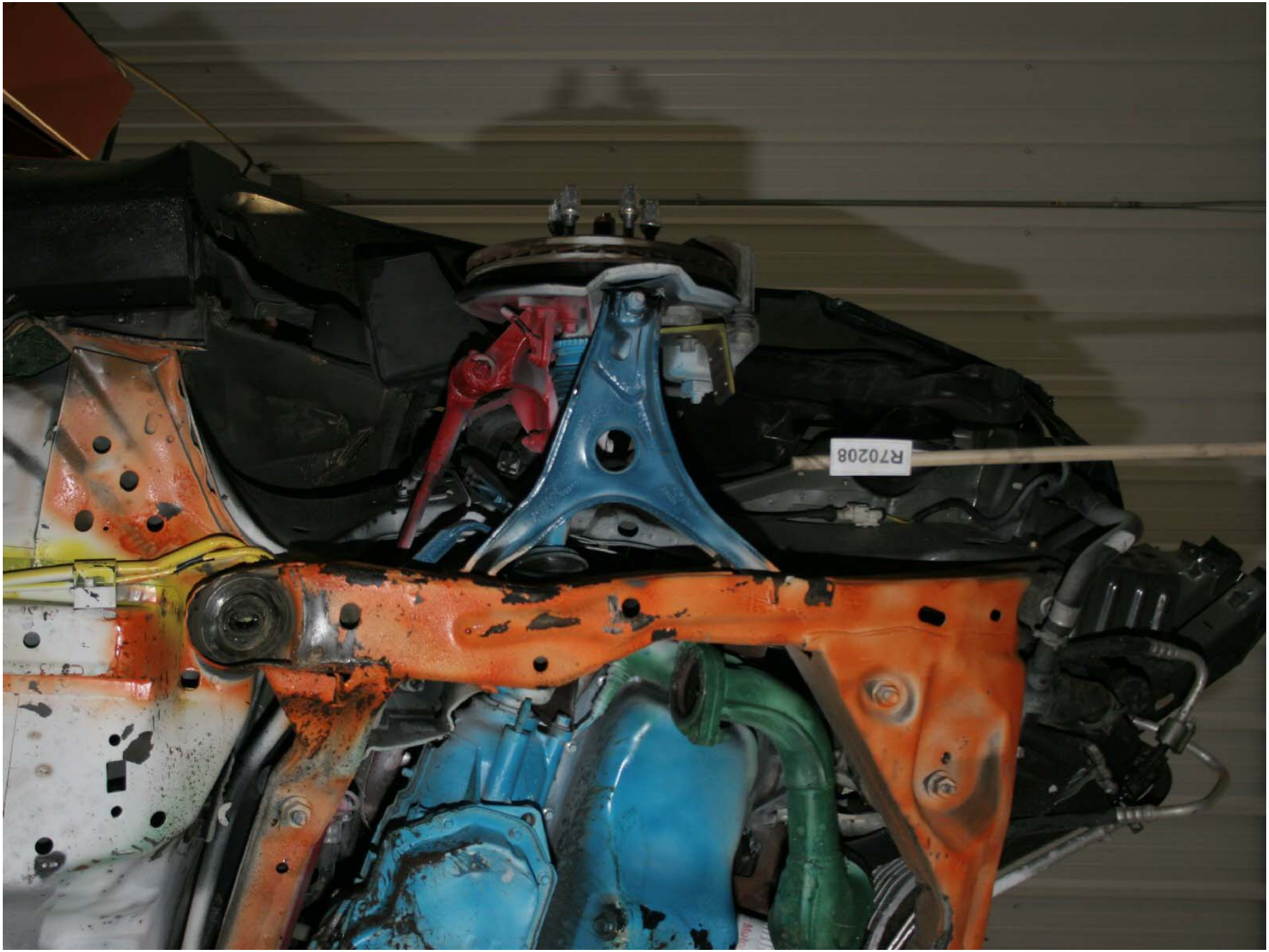

Figure A-175: Test Vehicle Post-Test Right Inner Fender Well View

Figure A-176: Test Vehicle Pre-Test Right Inner Fender Well View

Figure A-177: Test Vehicle Post-Test Right Inner Fender Well View

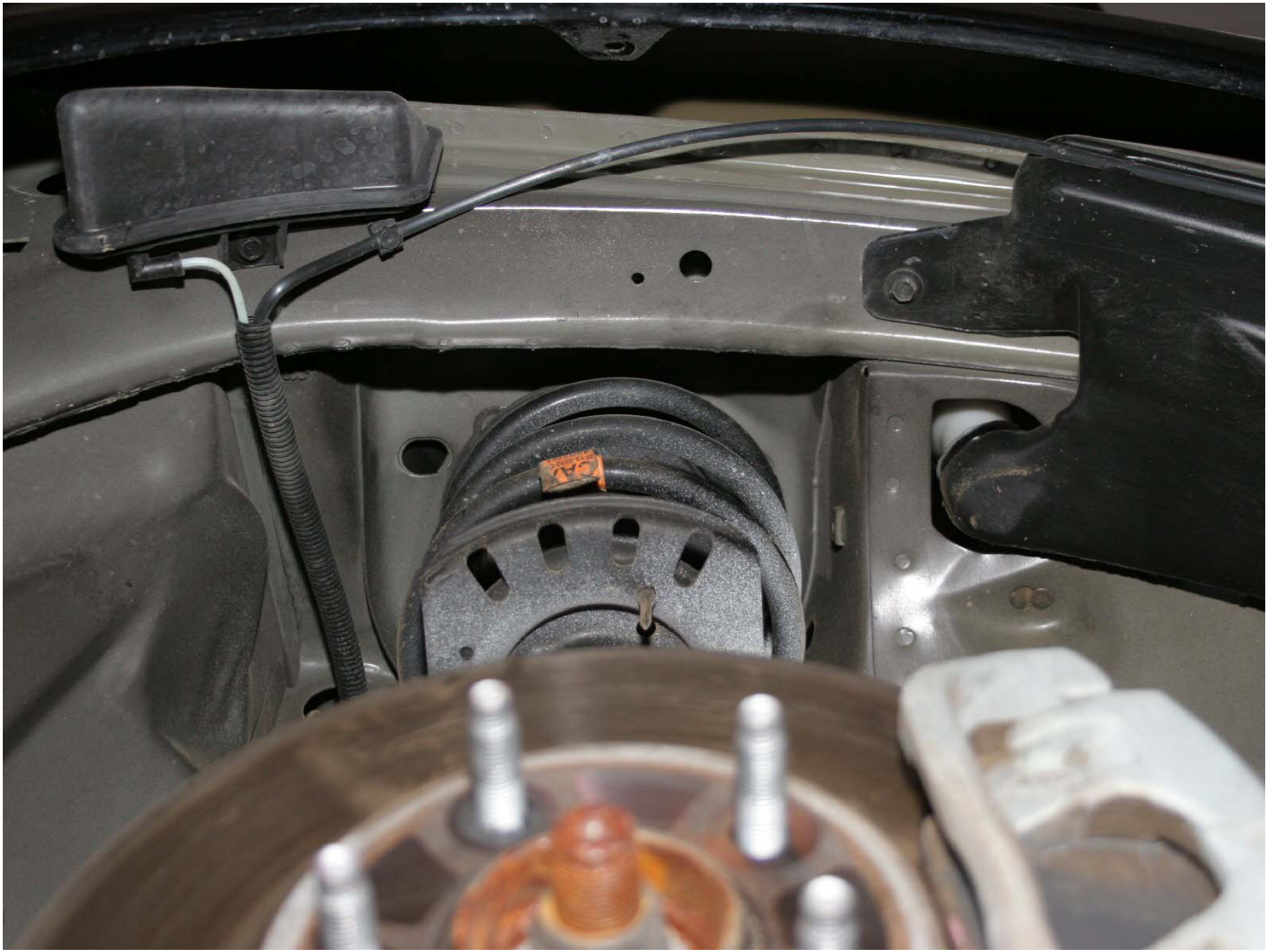

Figure A-178: Test Vehicle Pre-Test Right Inner Fender Well View

Figure A-179: Test Vehicle Post-Test Right Inner Fender Well View

Figure A-180: Test Vehicle Pre-Test Top Fender View

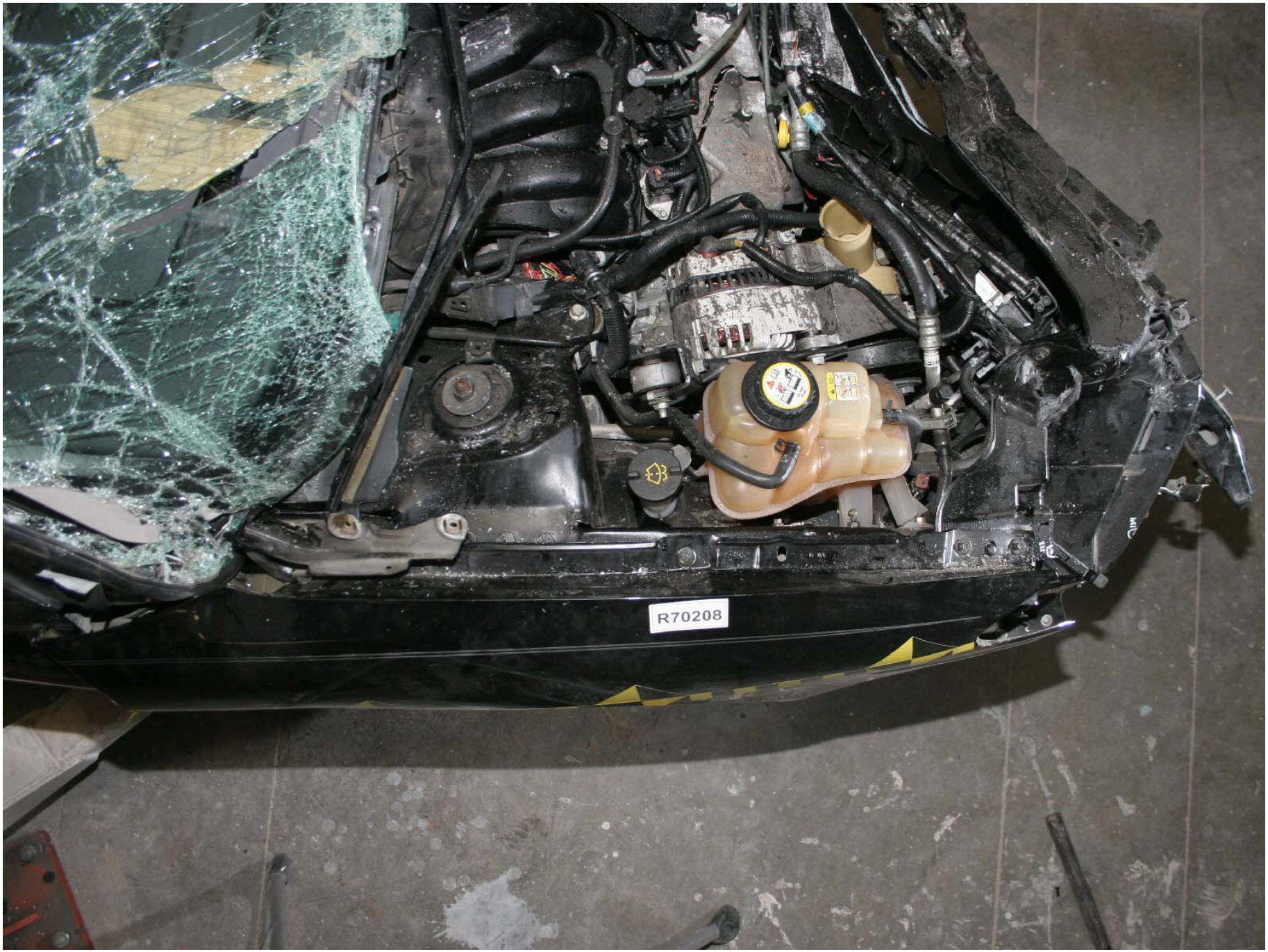

Figure A-181: Test Vehicle Post-Test Top Fender View

Figure A-182: Test Vehicle Pre-Test Right Front Frame Rail View

Figure A-183: Test Vehicle Post-Test Right Front Frame Rail View

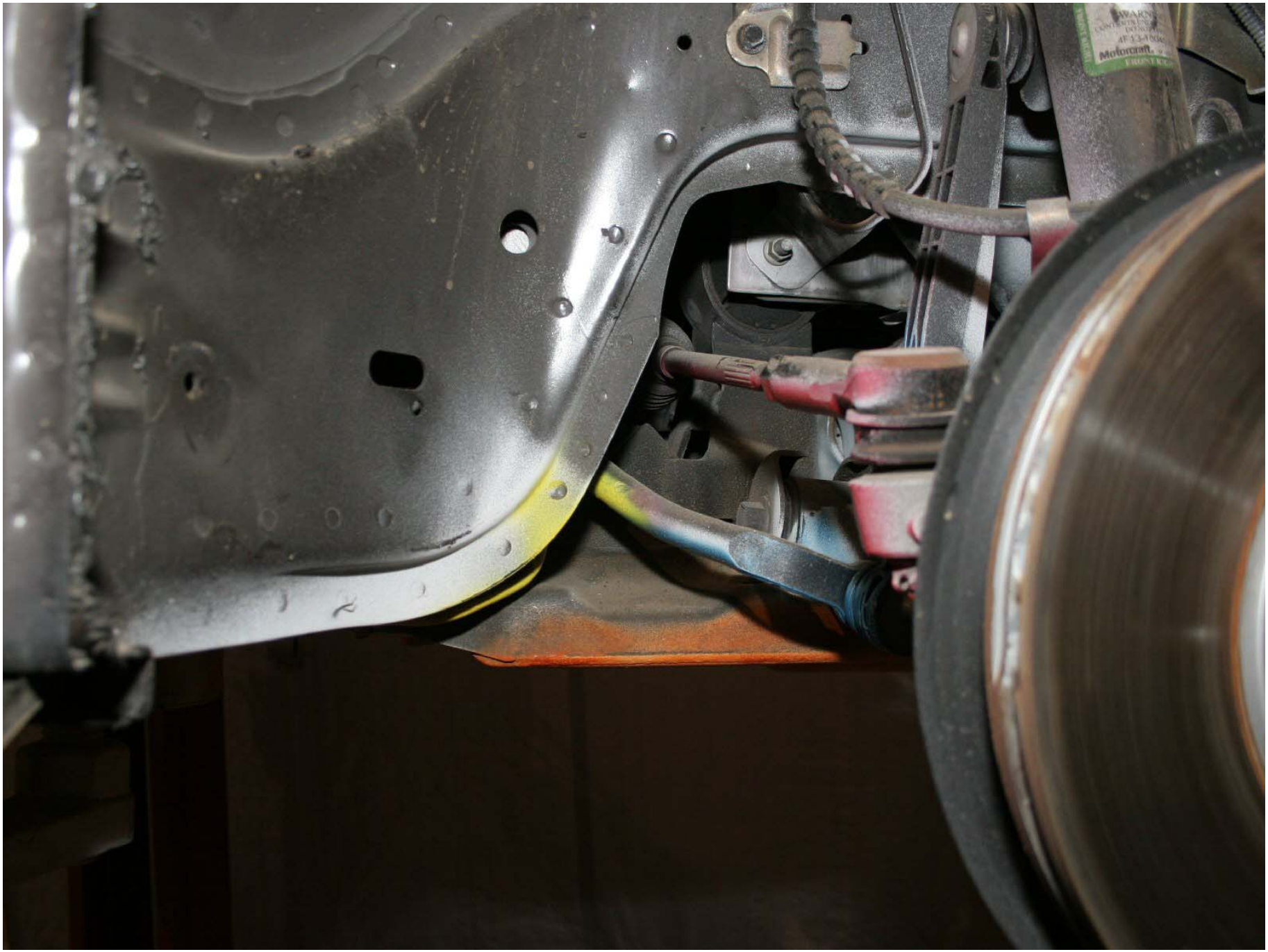

Figure A-184: Test Vehicle Pre-Test Right Front Frame Rail View

Figure A-185: Test Vehicle Post-Test Right Front Frame Rail View

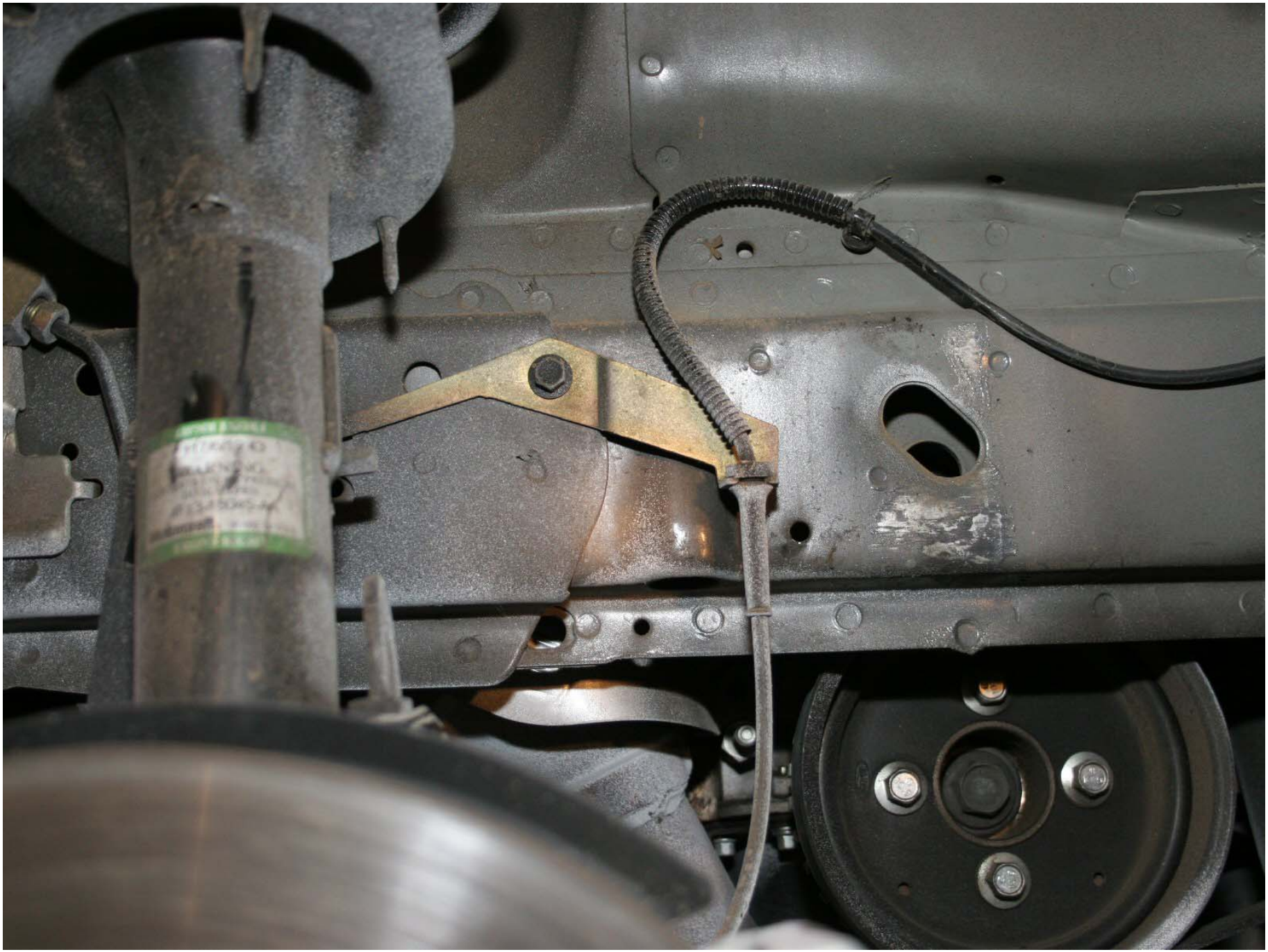

Figure A-186: Test Vehicle Pre-Test Right Front Frame Rail View

Figure A-187: Test Vehicle Post-Test Right Front Frame Rail View

Figure A-188: Test Vehicle Pre-Test Right Side Frame to A-Pillar Joint

Figure A-189: Test Vehicle Post-Test Right Side Frame to A-Pillar Joint

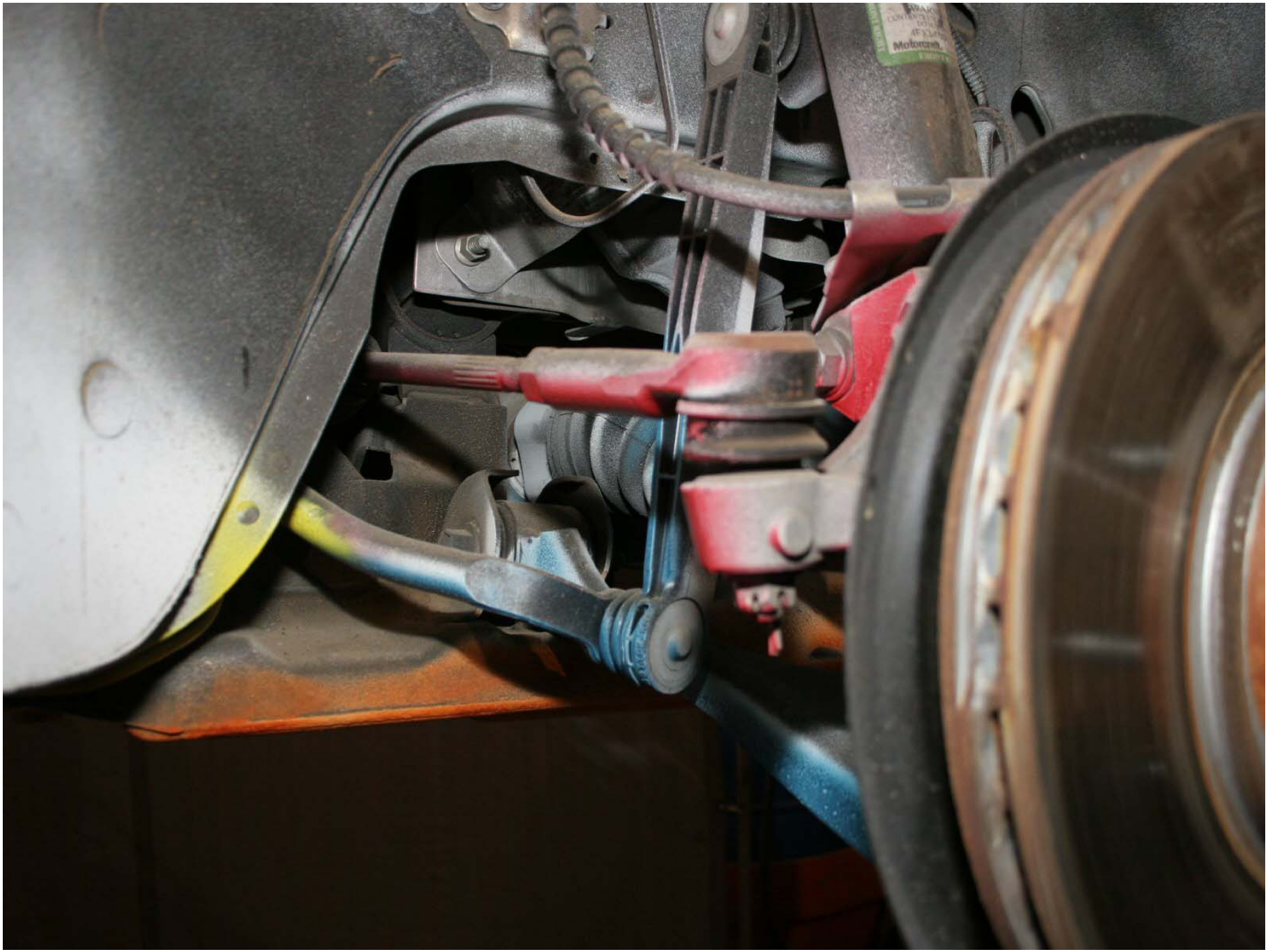

Figure A-190: Test Vehicle Pre-Test Right Side Tie Rod and Sway Bar Attachments Points

Figure A-191: Test Vehicle Post-Test Right Side Tie Rod and Sway Bar Attachments Points

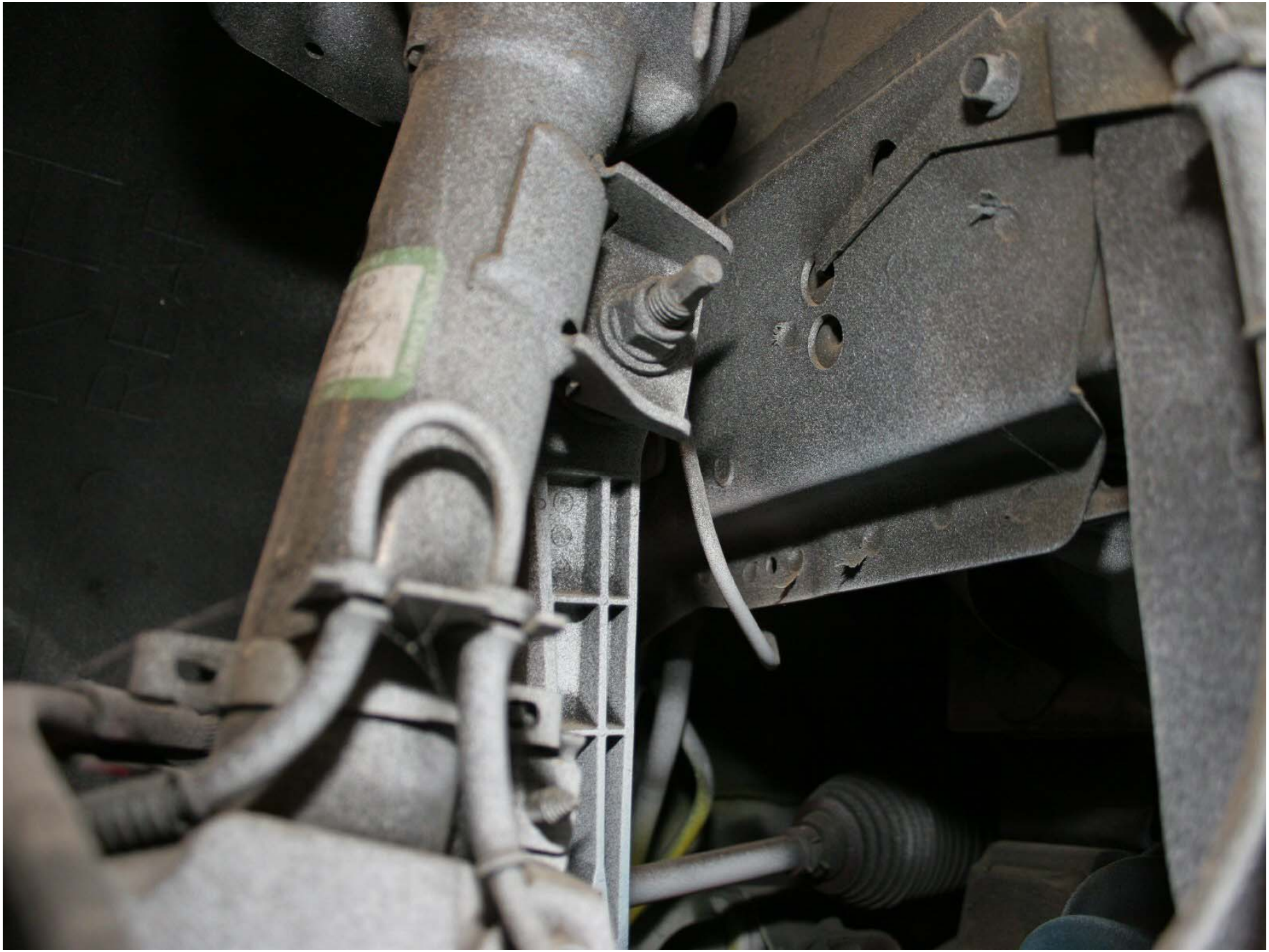

Figure A-192: Test Vehicle Pre-Test Right Side Upper Sway Bar Attachment Point

Figure A-193: Test Vehicle Post-Test Right Side Upper Sway Bar Attachment Point

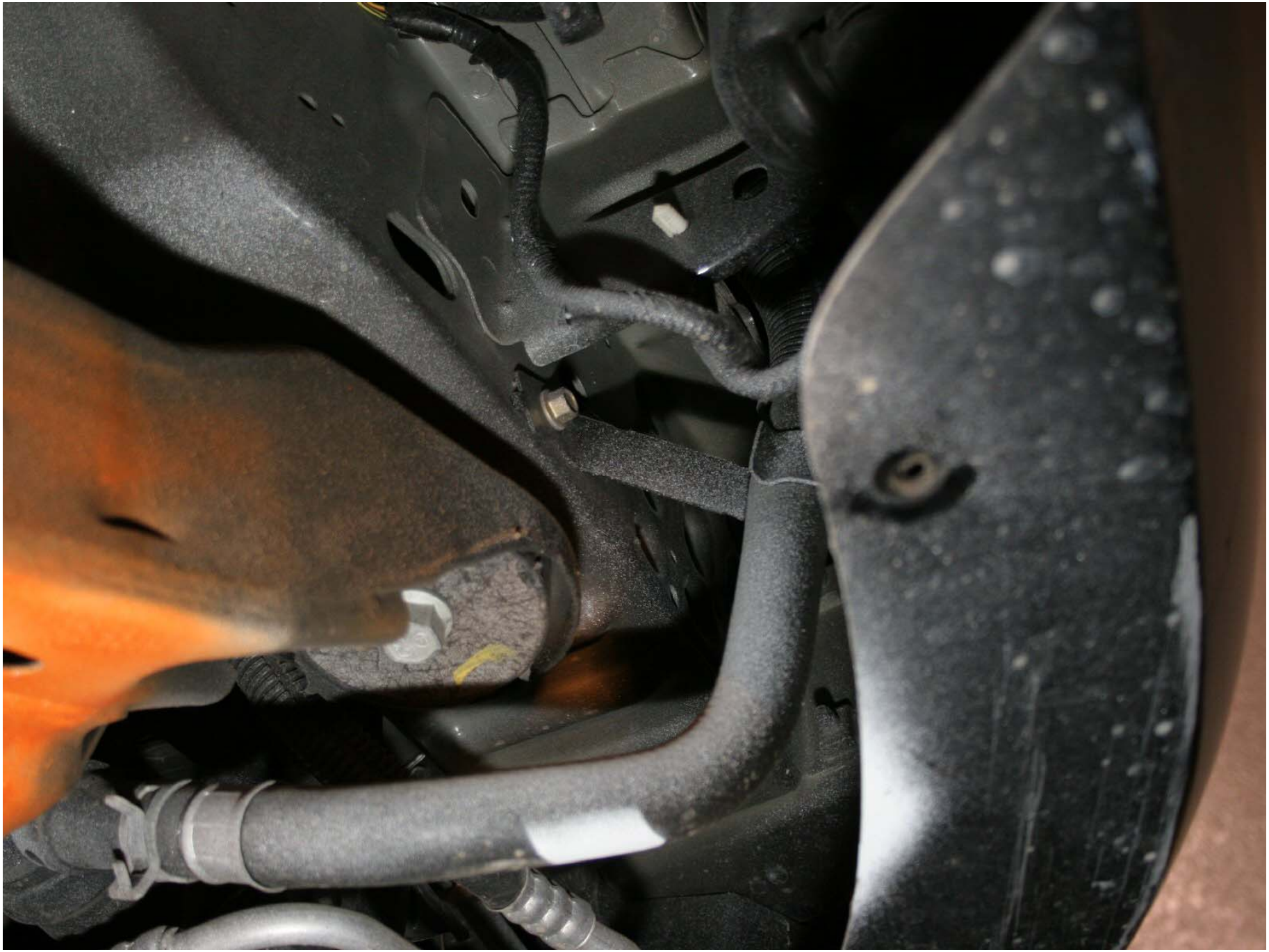

Figure A-194: Test Vehicle Pre-Test Right Side Crush Initiators

Figure A-195: Test Vehicle Post-Test Right Side Crush Initiators

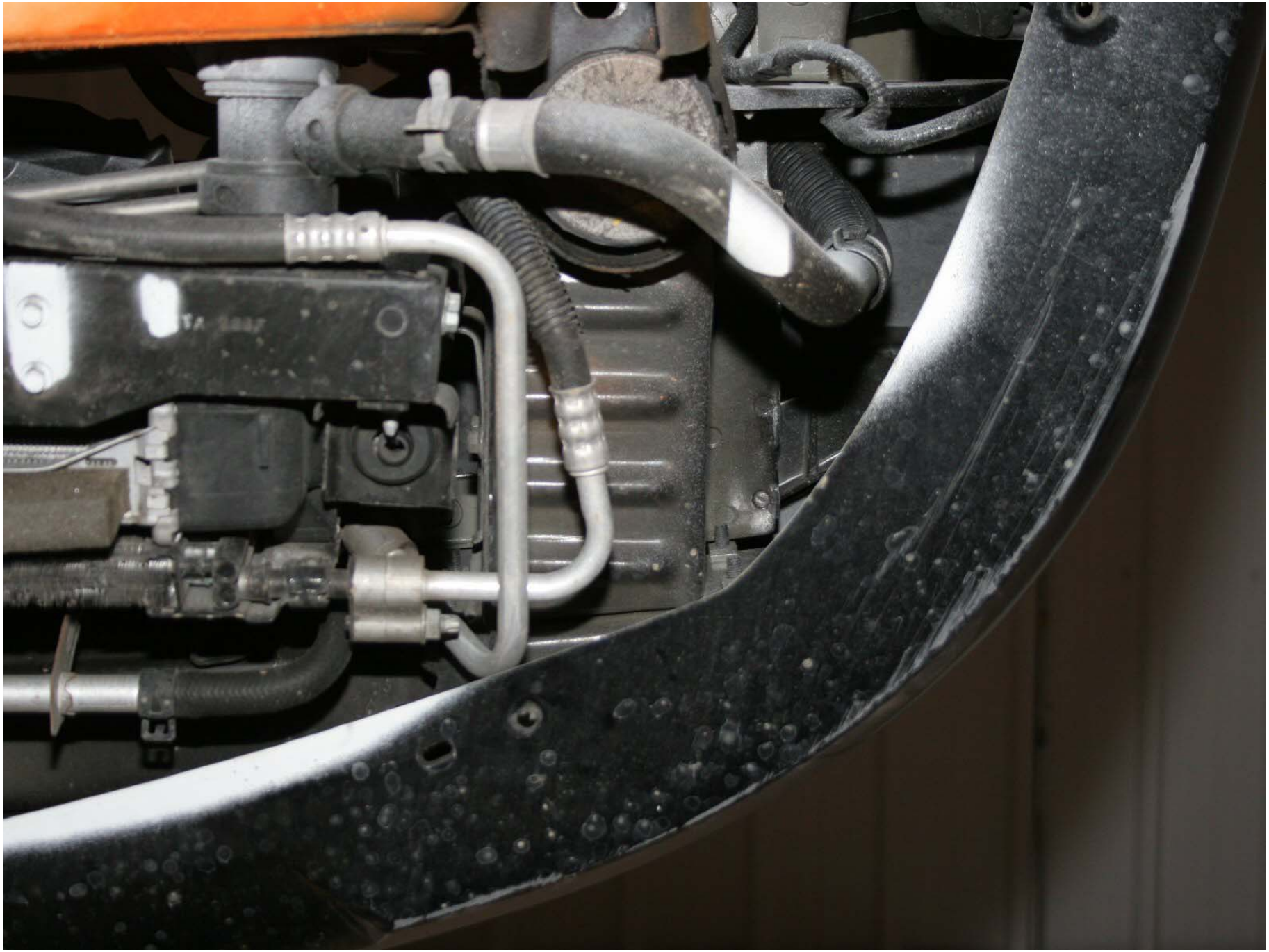

Figure A-196: Test Vehicle Pre-Test Right Side Crush Initiators

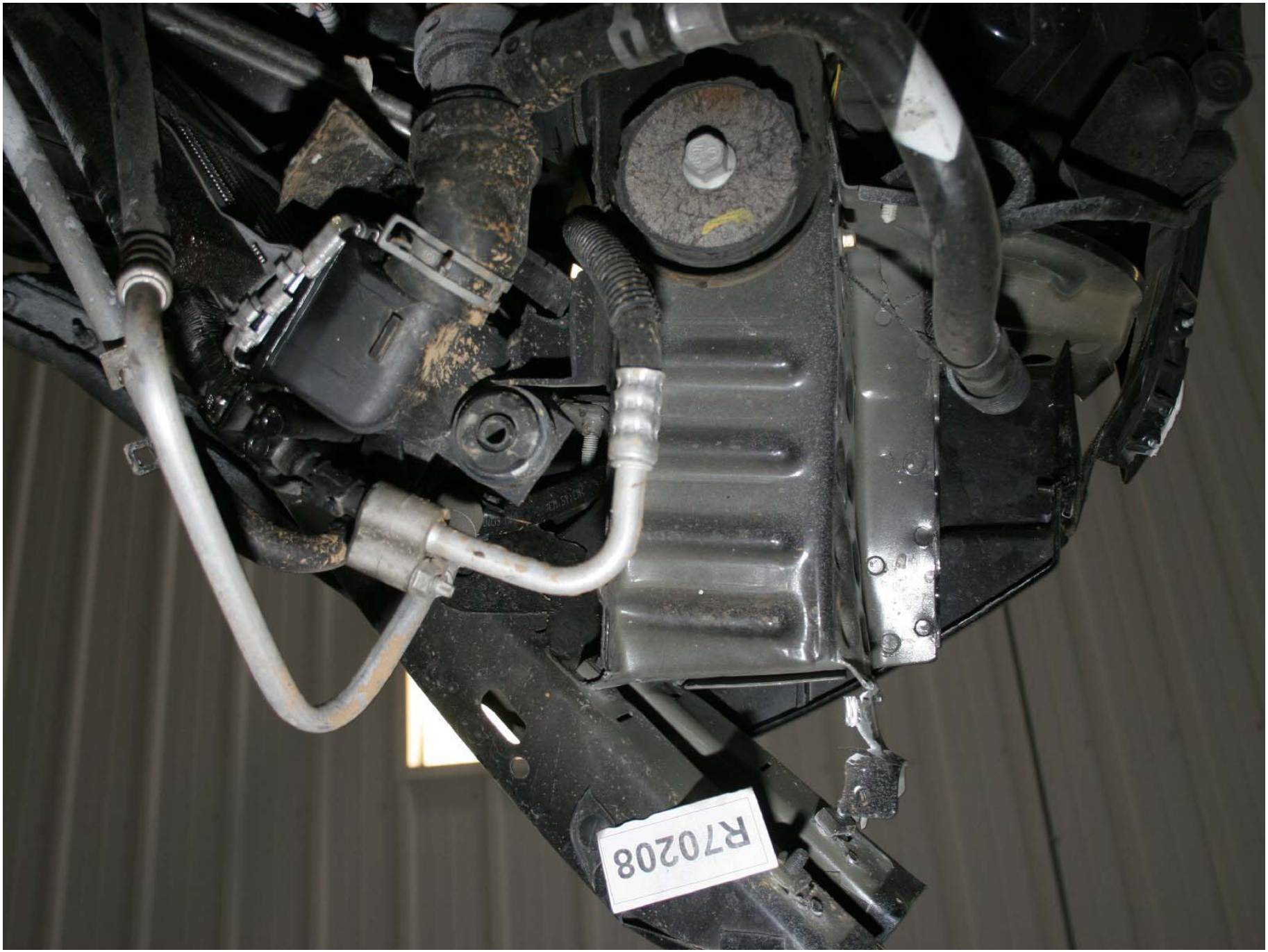

Figure A-197: Test Vehicle Post-Test Right Side Crush Initiators

Figure A-198: Test Vehicle Pre-Test Right Side Bumper Attachment Point

Figure A-199: Test Vehicle Post-Test Right Side Bumper Attachment Point

Figure A-200: Test Vehicle Pre-Test Right Front Sub-Frame Mounting Point

Figure A-201: Test Vehicle Post-Test Right Front Sub-Frame Mounting Point

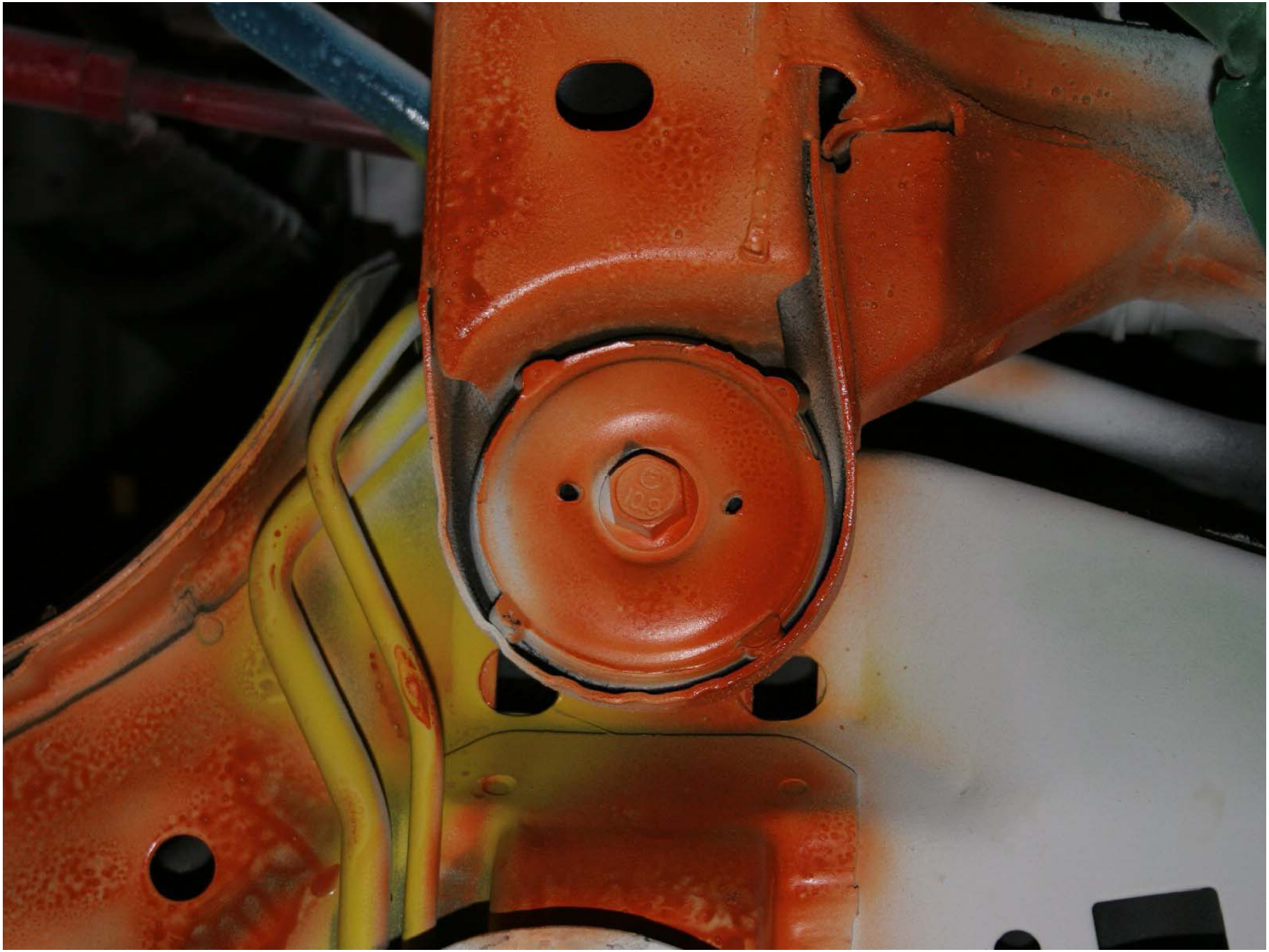

Figure A-202: Test Vehicle Pre-Test Right Rear Sub-Frame Mounting Point

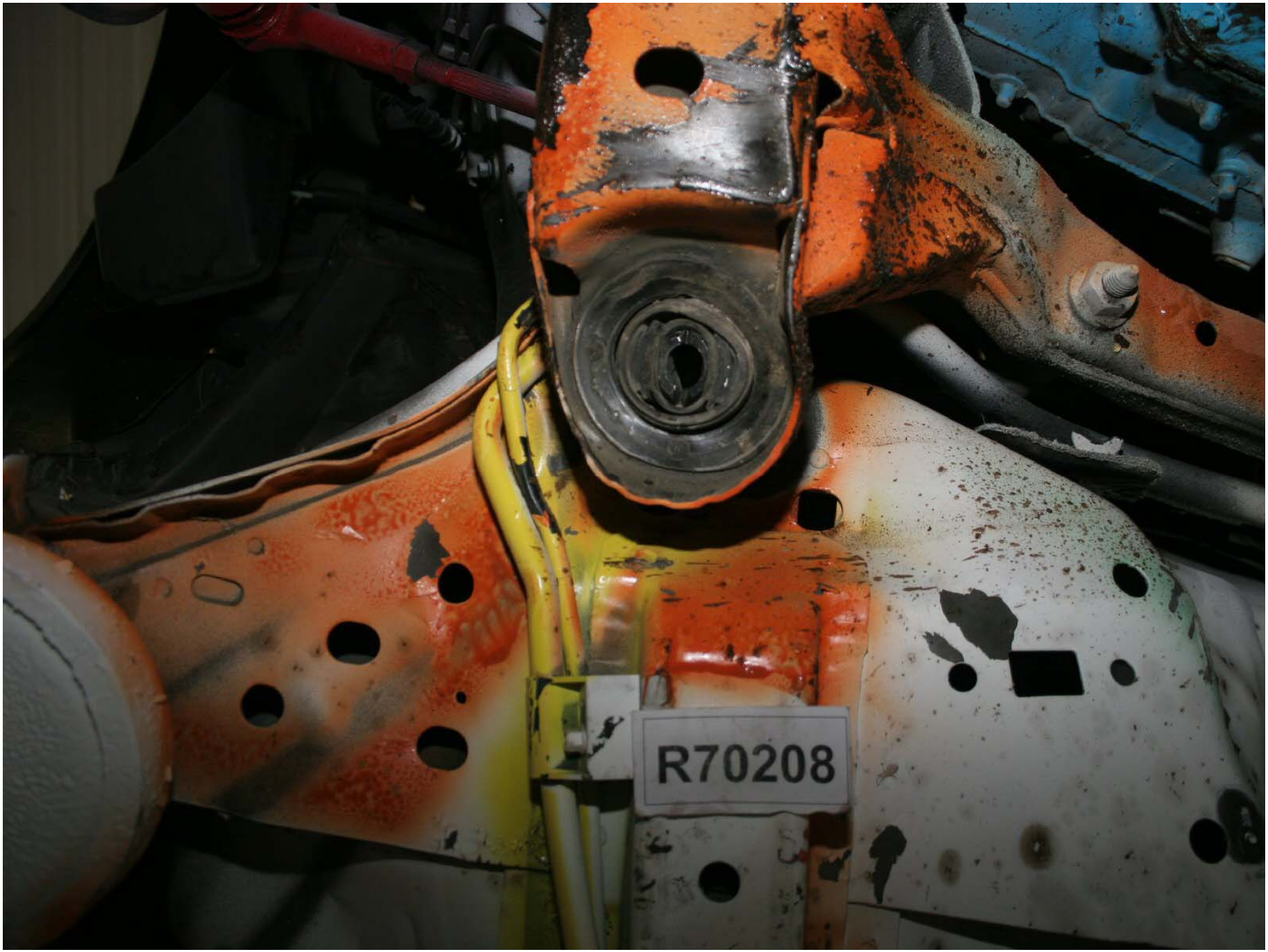

Figure A-203: Test Vehicle Post-Test Right Rear Sub-Frame Mounting Point

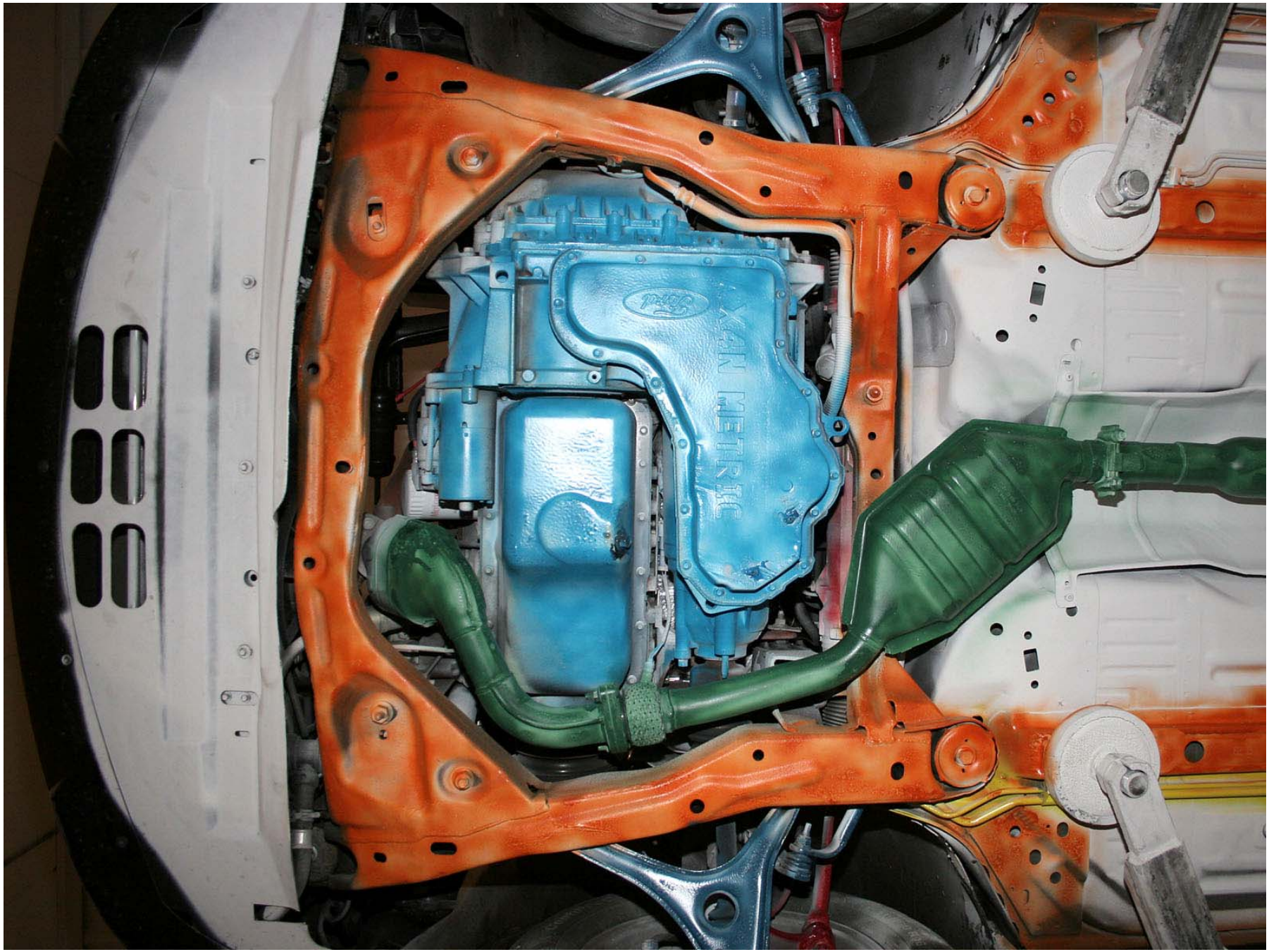

Figure A-204: Test Vehicle Pre-Test Front Underbody

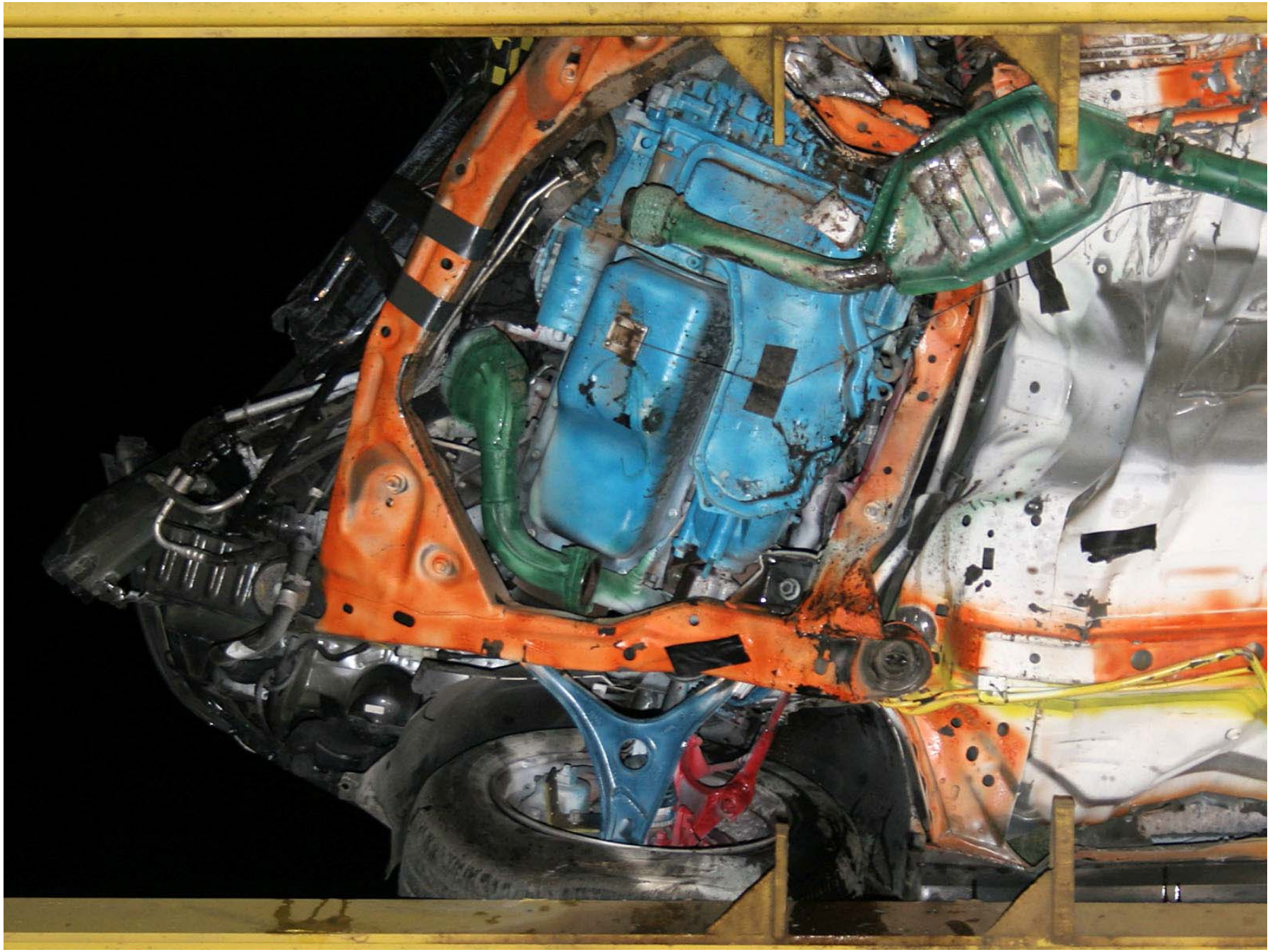

Figure A-205: Test Vehicle Post-Test Front Underbody

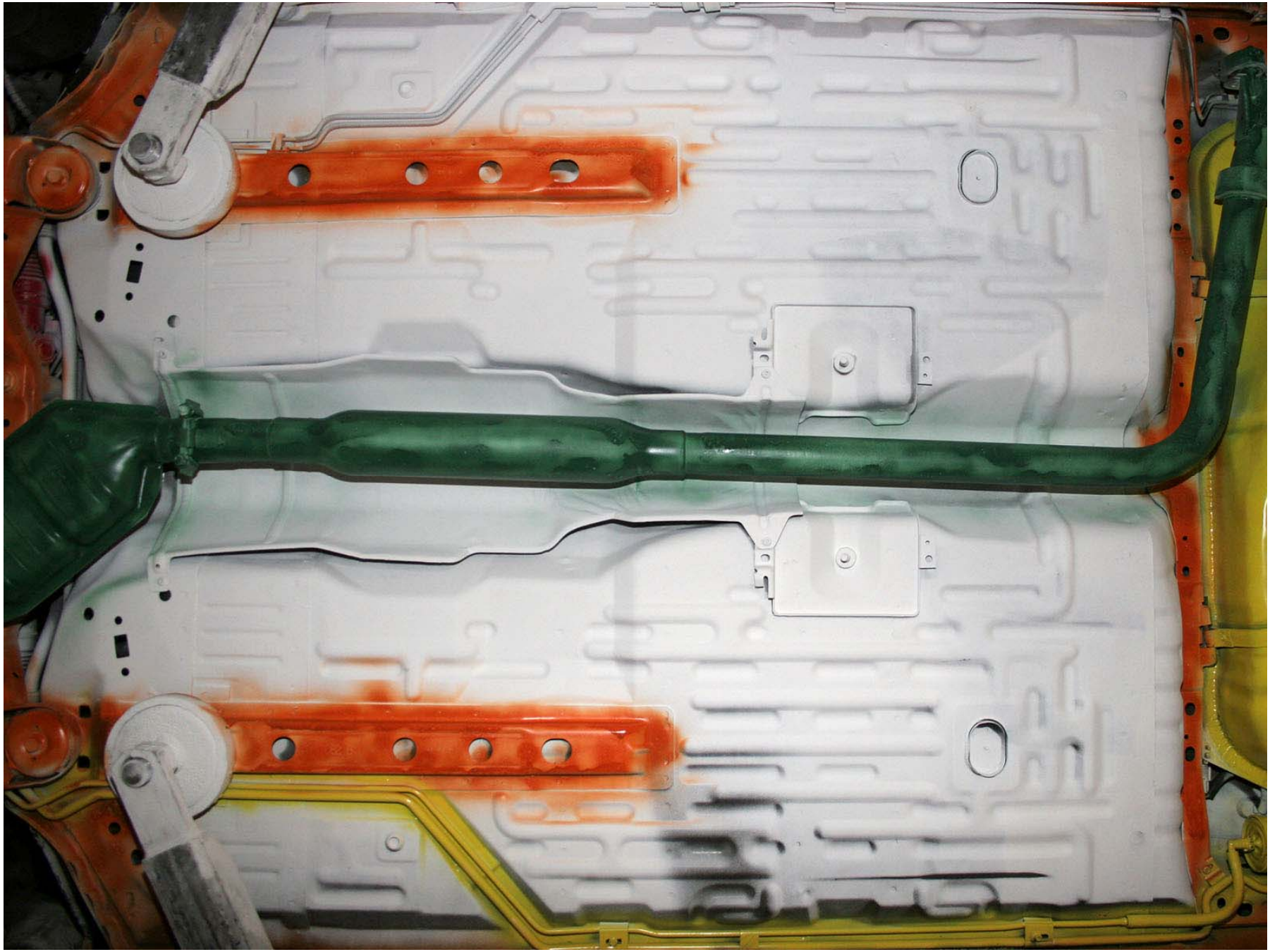

Figure A-206: Test Vehicle Pre-Test Mid Underbody

Figure A-207: Test Vehicle Post-Test Mid Underbody

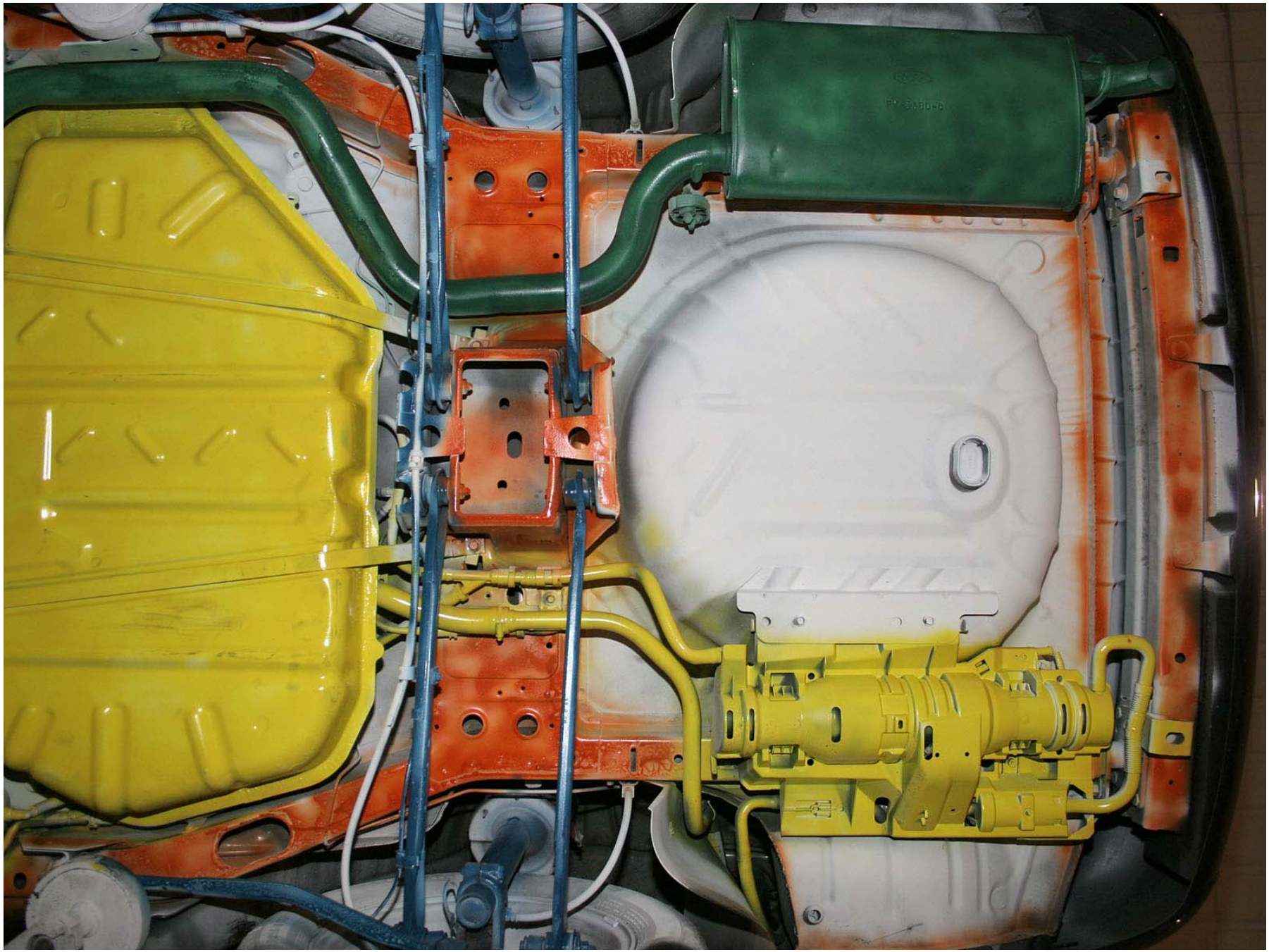

Figure A-208: Test Vehicle Pre-Test Rear Underbody

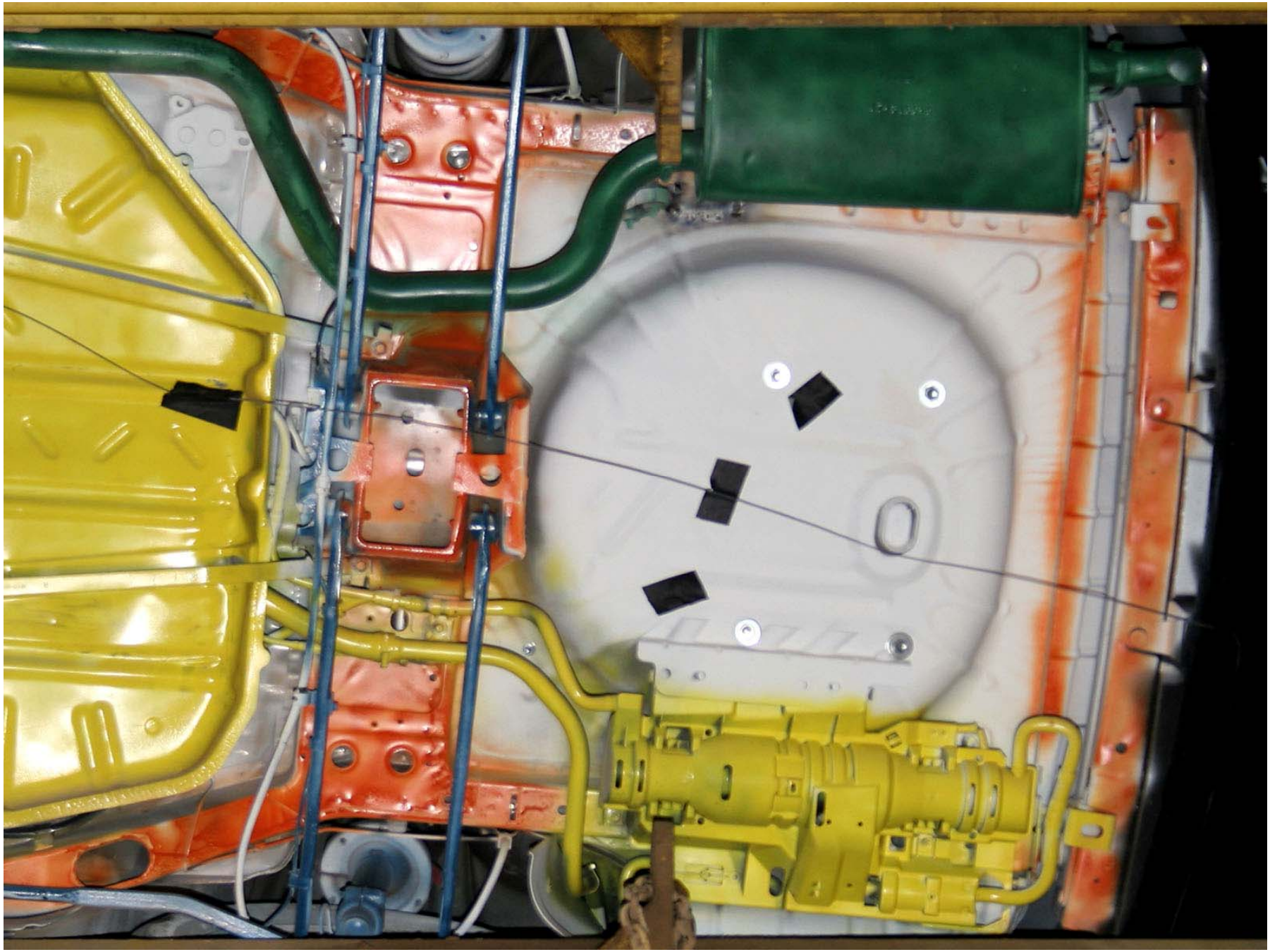

Figure A-209: Test Vehicle Post-Test Rear Underbody

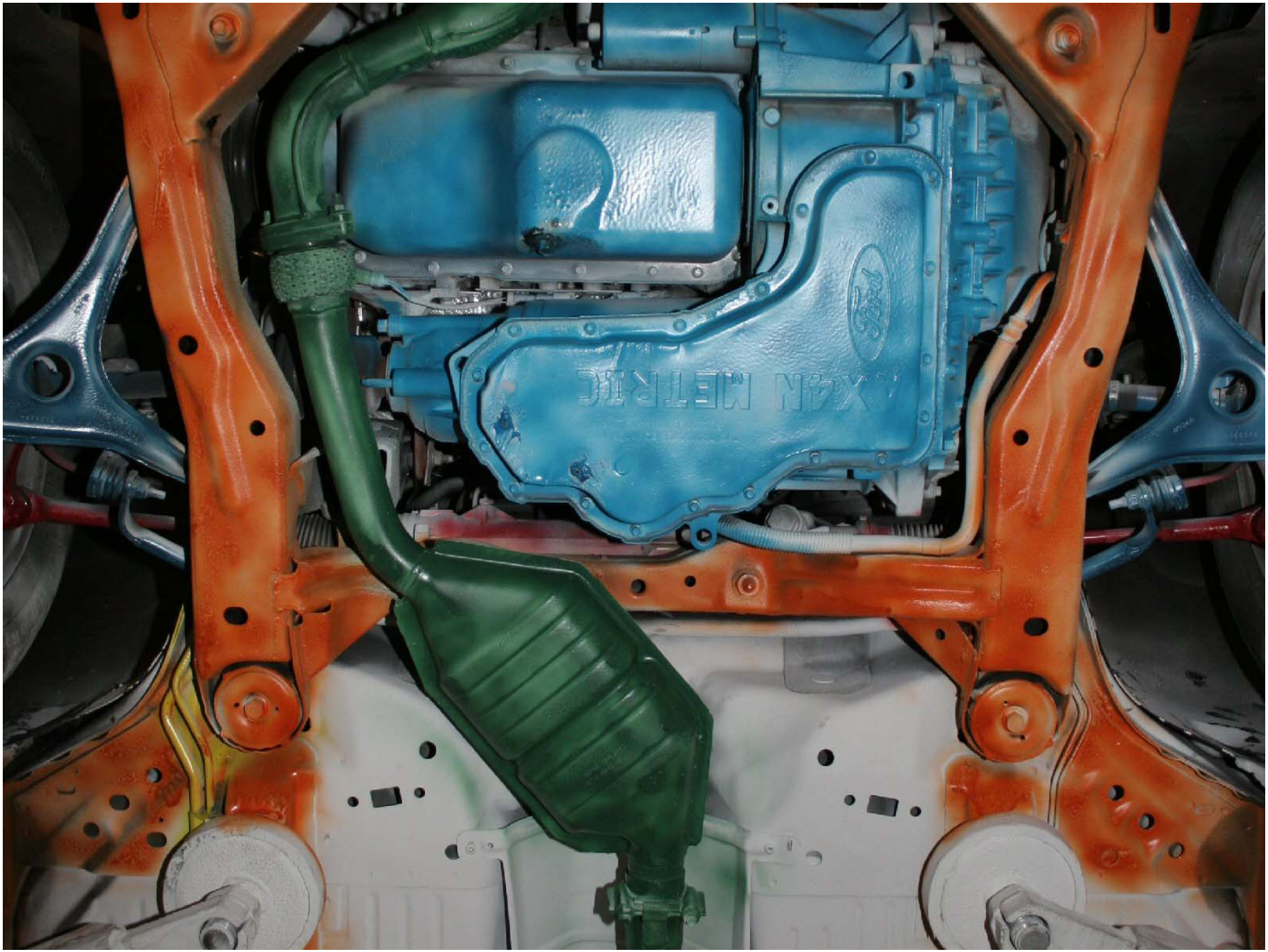

Figure A-210: Test Vehicle Pre-Test Steering Rack and Sway Bar View

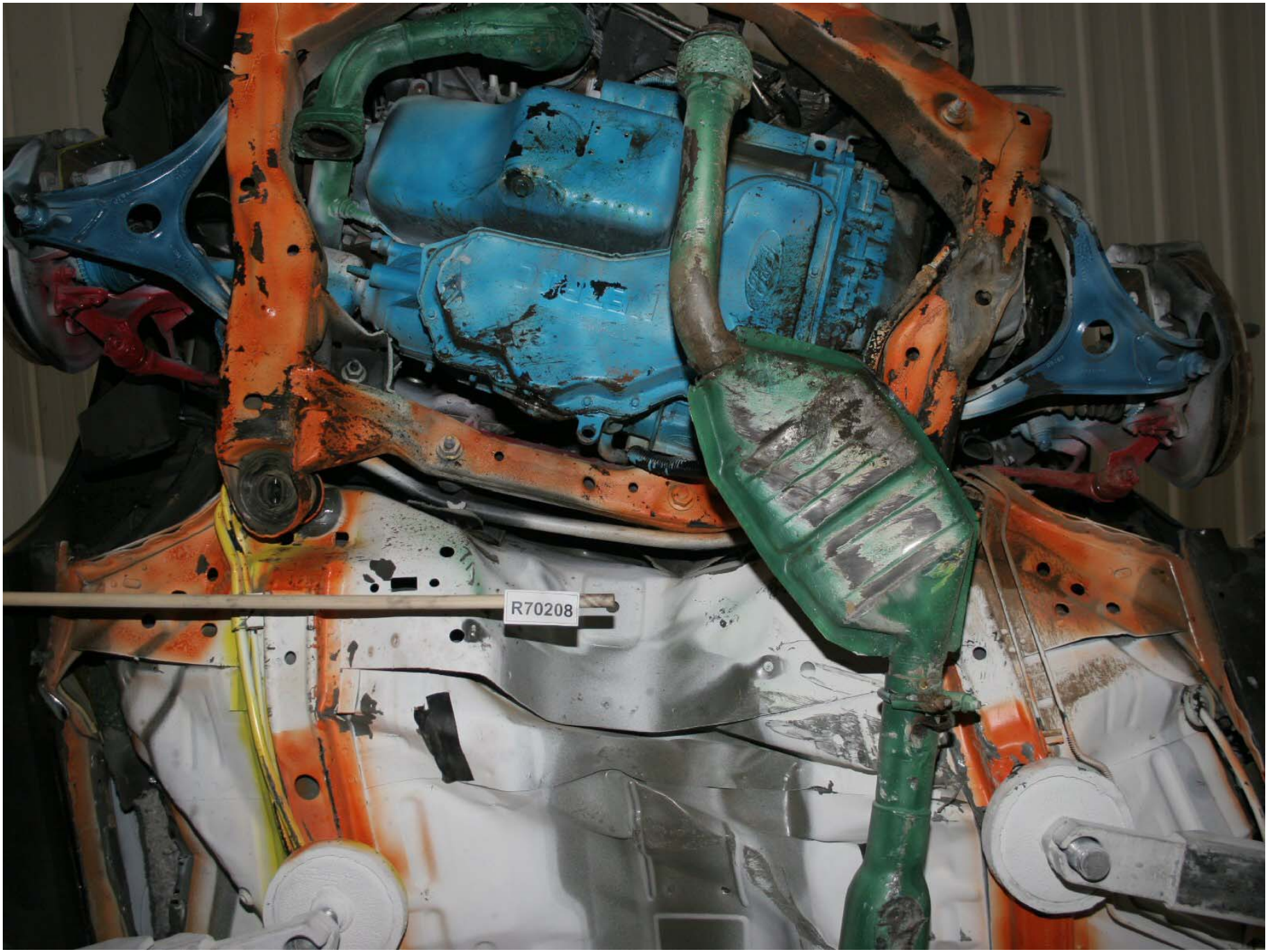

Figure A-211: Test Vehicle Post-Test Steering Rack and Sway Bar View

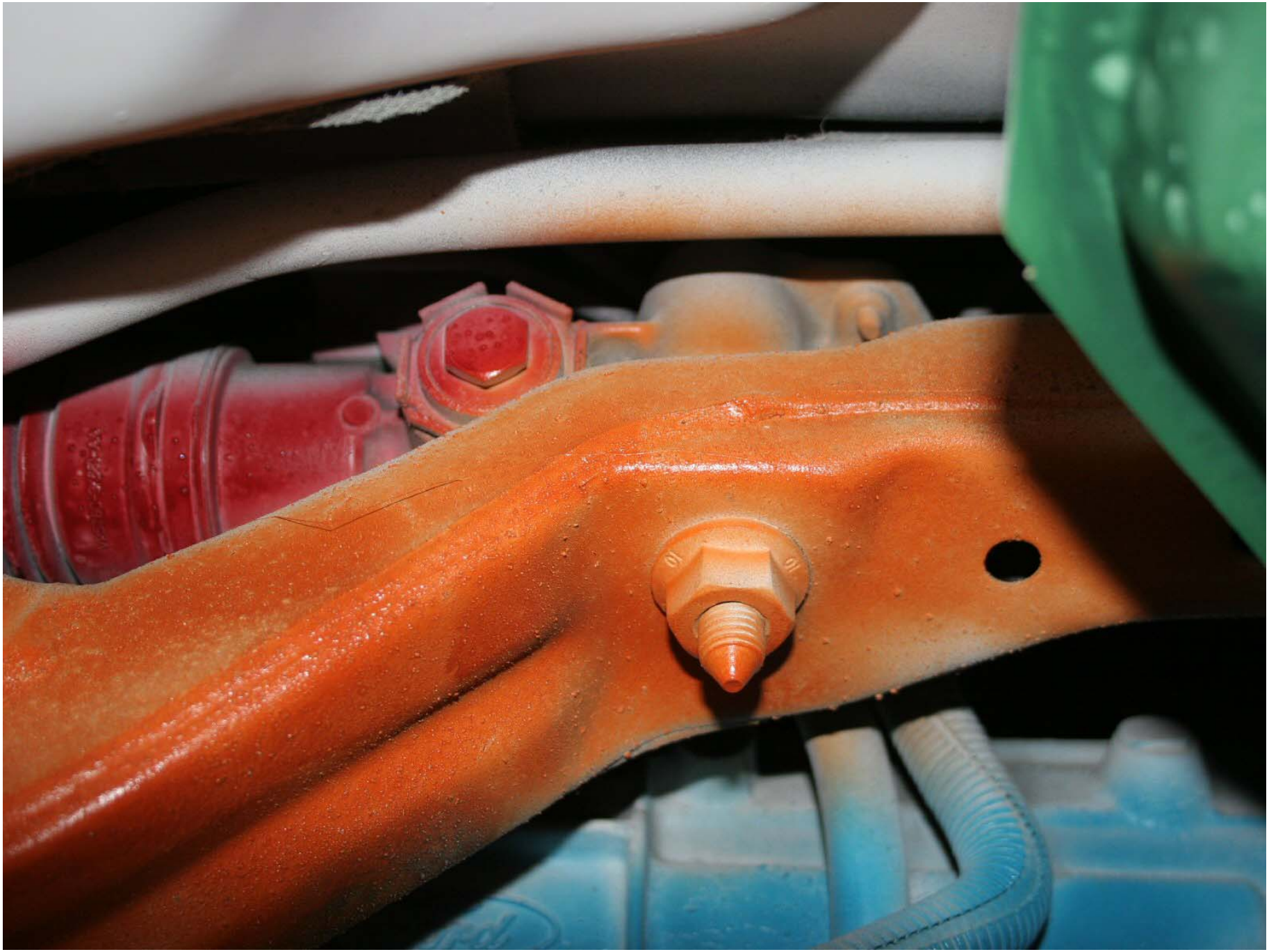

Figure A-212: Test Vehicle Pre-Test Steering Rack Left Side Mounting Bolt

Figure A-213: Test Vehicle Post-Test Steering Rack Left Side Mounting Bolt

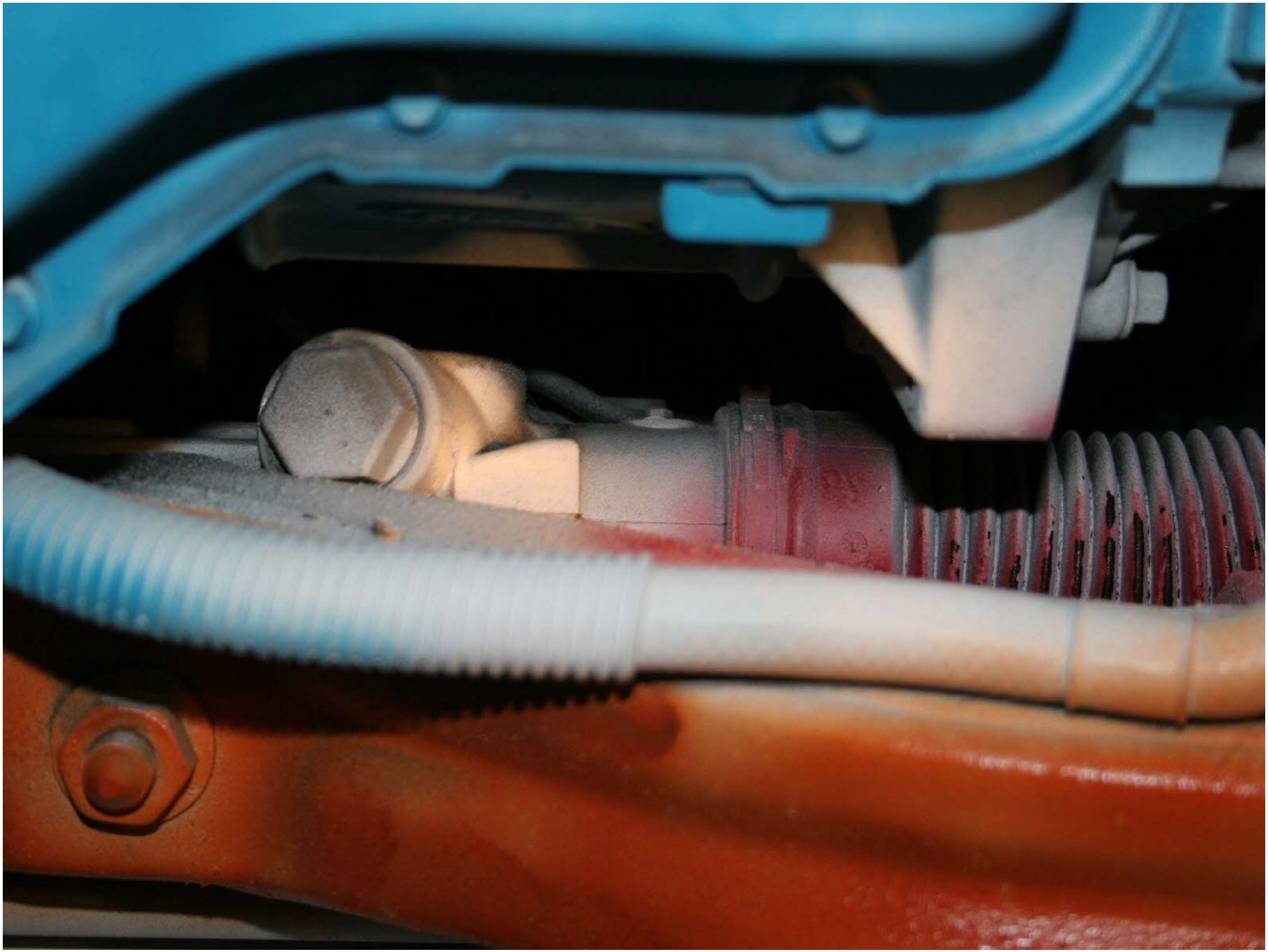

Figure A-214: Test Vehicle Pre-Test Steering Rack Right Side Mounting Bolt

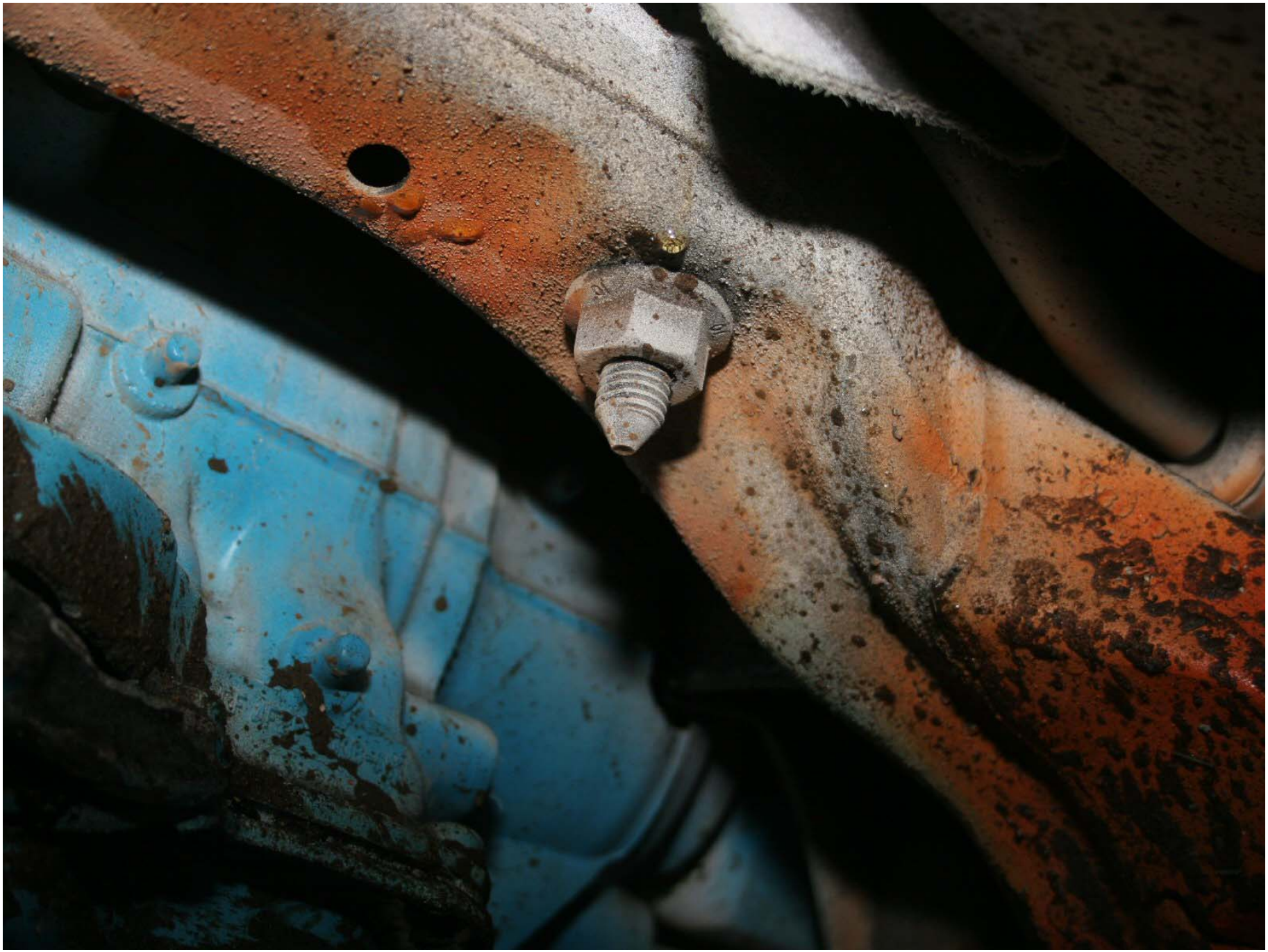

Figure A-215: Test Vehicle Post-Test Steering Rack Right Side Mounting Bolt

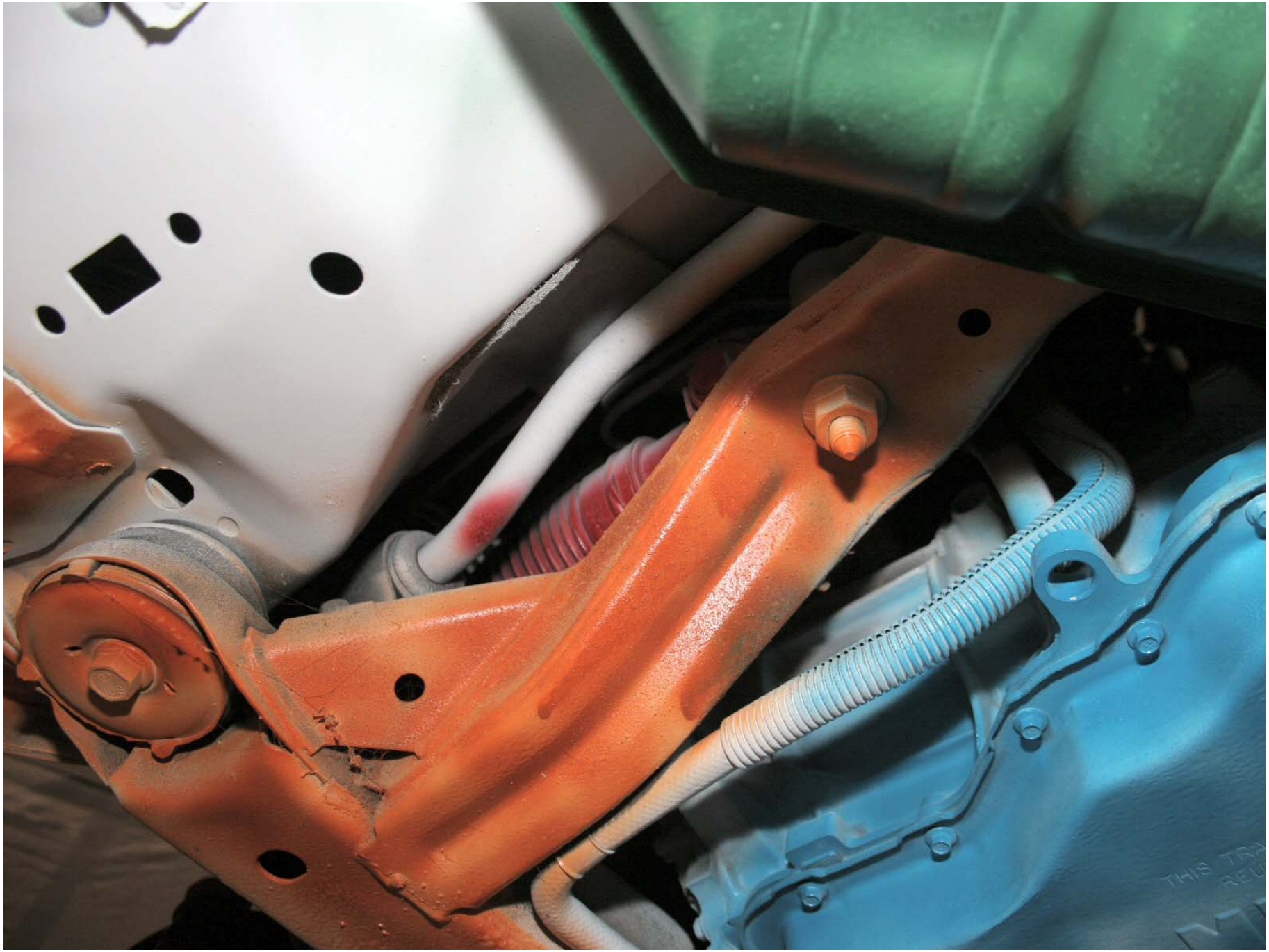

Figure A-216: Test Vehicle Pre-Test Sway Bar Left Side Mounting Bolts

Figure A-217: Test Vehicle Post-Test Sway Bar Left Side Mounting Bolts

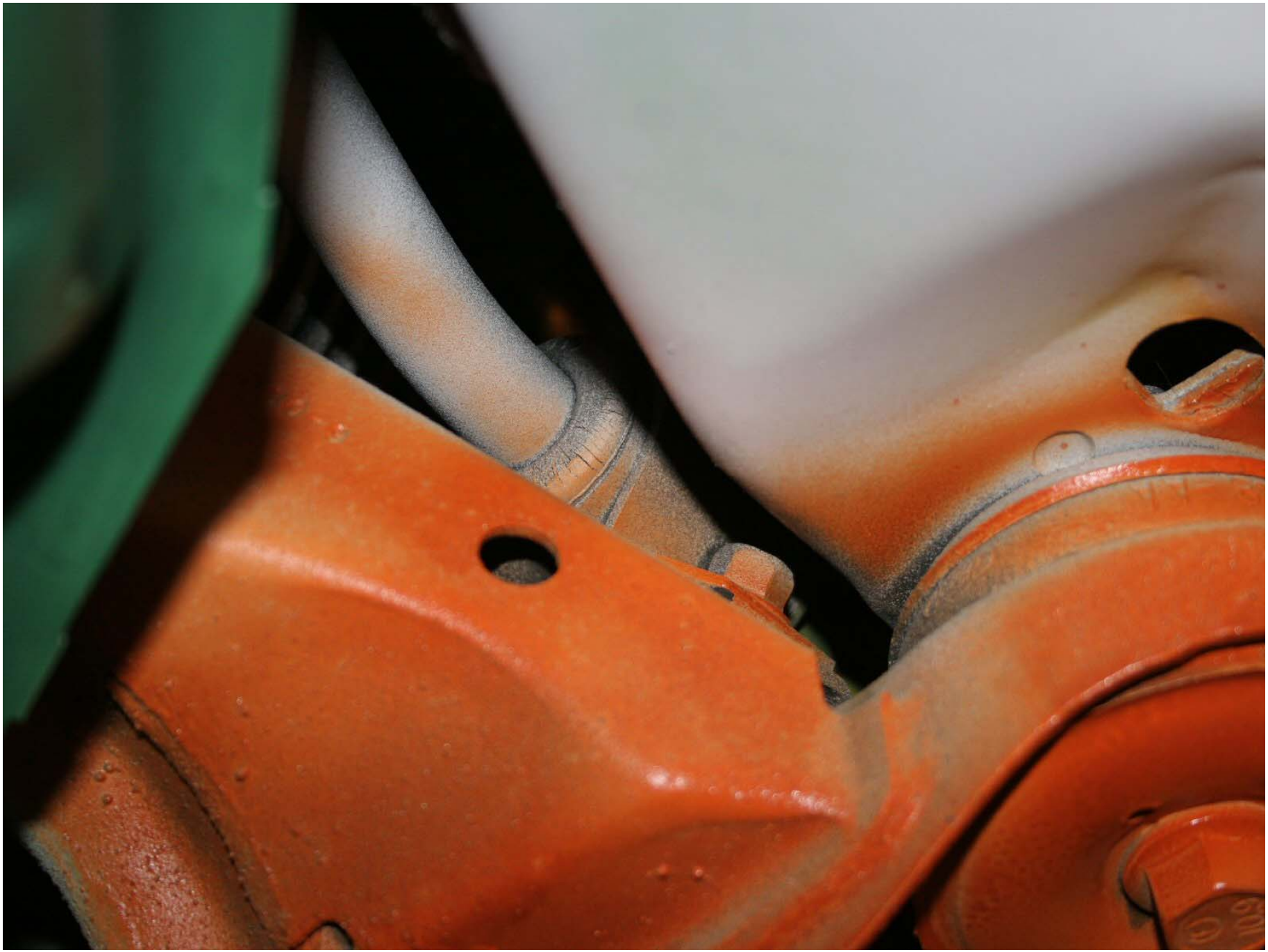

Figure A-218: Test Vehicle Pre-Test Sway Bar Right Side Mounting Bolts

Figure A-219: Test Vehicle Post-Test Sway Bar Right Side Mounting Bolts

Figure A-220: Test Vehicle Pre-Test Front Door Panel

Figure A-221: Test Vehicle Post-Test Front Door Panel

Figure A-222: Test Vehicle Pre-Test Driver Dummy Right Side View

Figure A-223: Test Vehicle Post-Test Driver Dummy Right Side View

Figure A-224: Test Vehicle Pre-Test Driver Dummy Front View

Figure A-225: Test Vehicle Post-Test Driver Dummy Front View

Figure A-226: Test Vehicle Pre-Test Driver Dummy Left Side View (Door Open)

Figure A-227: Test Vehicle Post-Test Driver Dummy Left Side View (Door Open)

Figure A-228: Test Vehicle Pre-Test Driver Dummy Abdomen Front View

Figure A-229: Test Vehicle Post-Test Driver Dummy Abdomen Front View

Figure A-230: Test Vehicle Pre-Test Driver Dummy Abdomen Side View

Figure A-231: Test Vehicle Post-Test Driver Dummy Abdomen Side View

Figure A-232: Test Vehicle Pre-Test Driver Dummy Feet Positioning

Figure A-233: Test Vehicle Pre-Test Driver Dummy Feet Positioning

Figure A-234: Test Vehicle Pre-Test Driver Dummy Feet Positioning

Figure A-235: Test Vehicle Post-Test Driver Dummy Feet Positioning

Figure A-236: Test Vehicle Post-Test Driver Dummy Feet Positioning

Figure A-237: Test Vehicle Pre-Test Driver Dummy Left Side View (Through Window)

Figure A-238: Test Vehicle Post-Test Driver Dummy Left Side View (Through Window)

Figure A-239: Test Vehicle Pre-Test Driver Dummy Clearance from Door

Figure A-240: Test Vehicle Post-Test Driver Dummy Clearance from Door

Figure A-241: Test Vehicle Pre-Test Driver's Side Knee Bolster

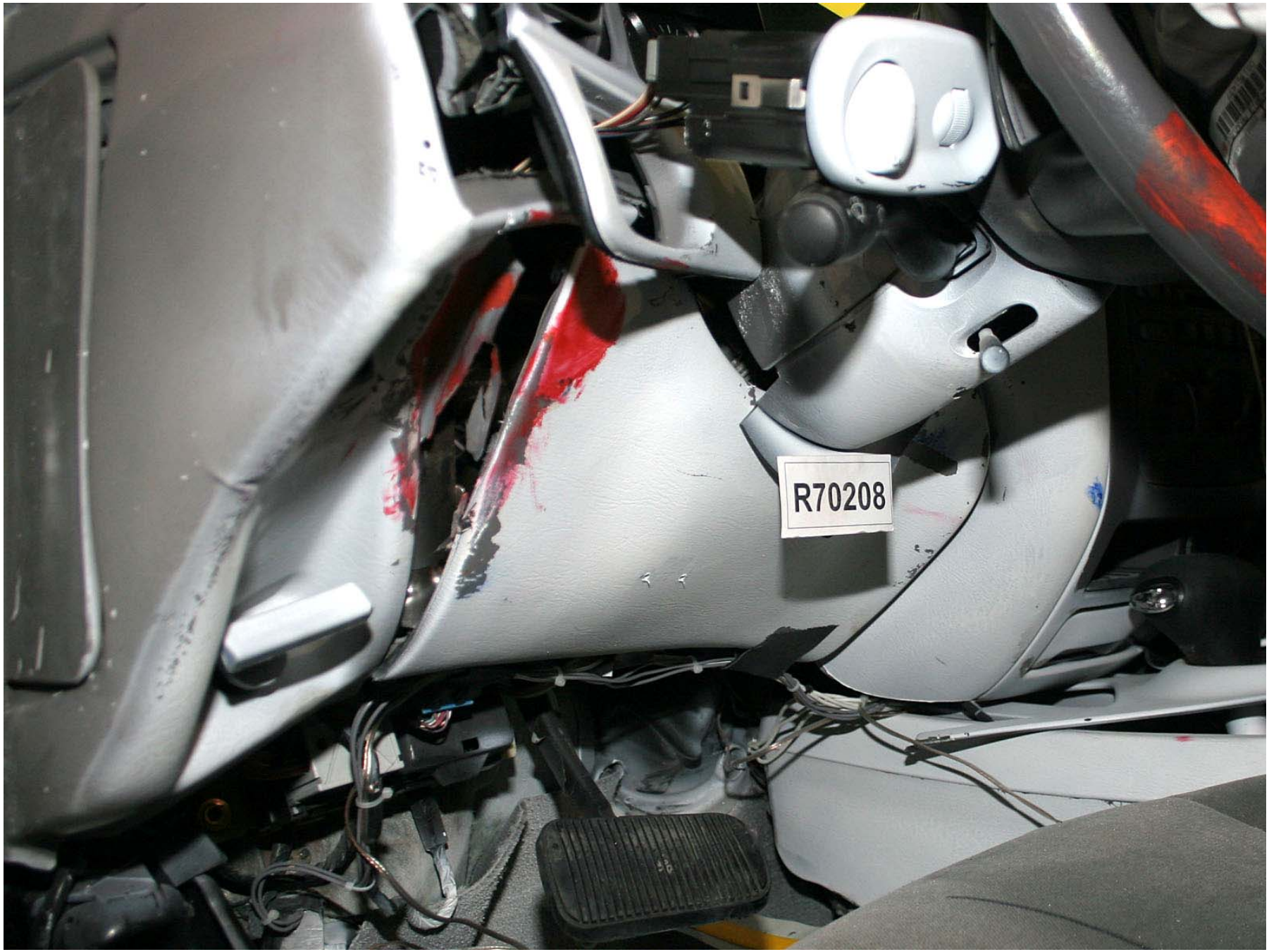

Figure A-242: Test Vehicle Post-Test Driver's Side Knee Bolster

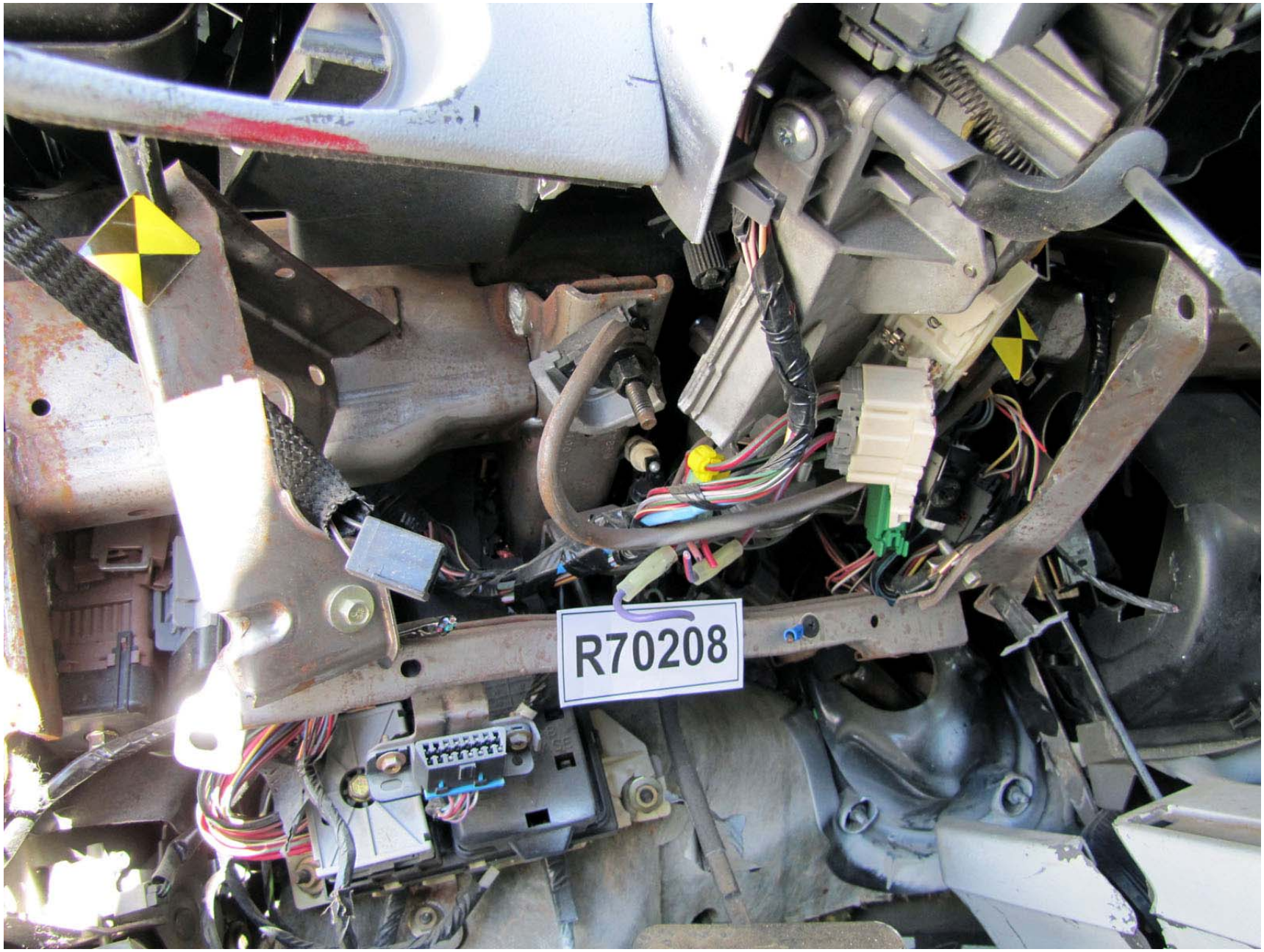

Figure A-243: Test Vehicle Post-Test Driver Side Knee Bolster

Figure A-244: Test Vehicle Post-Test Driver Side Knee Bolster

Figure A-245: Test Vehicle Post-Test Driver Side Knee Bolster

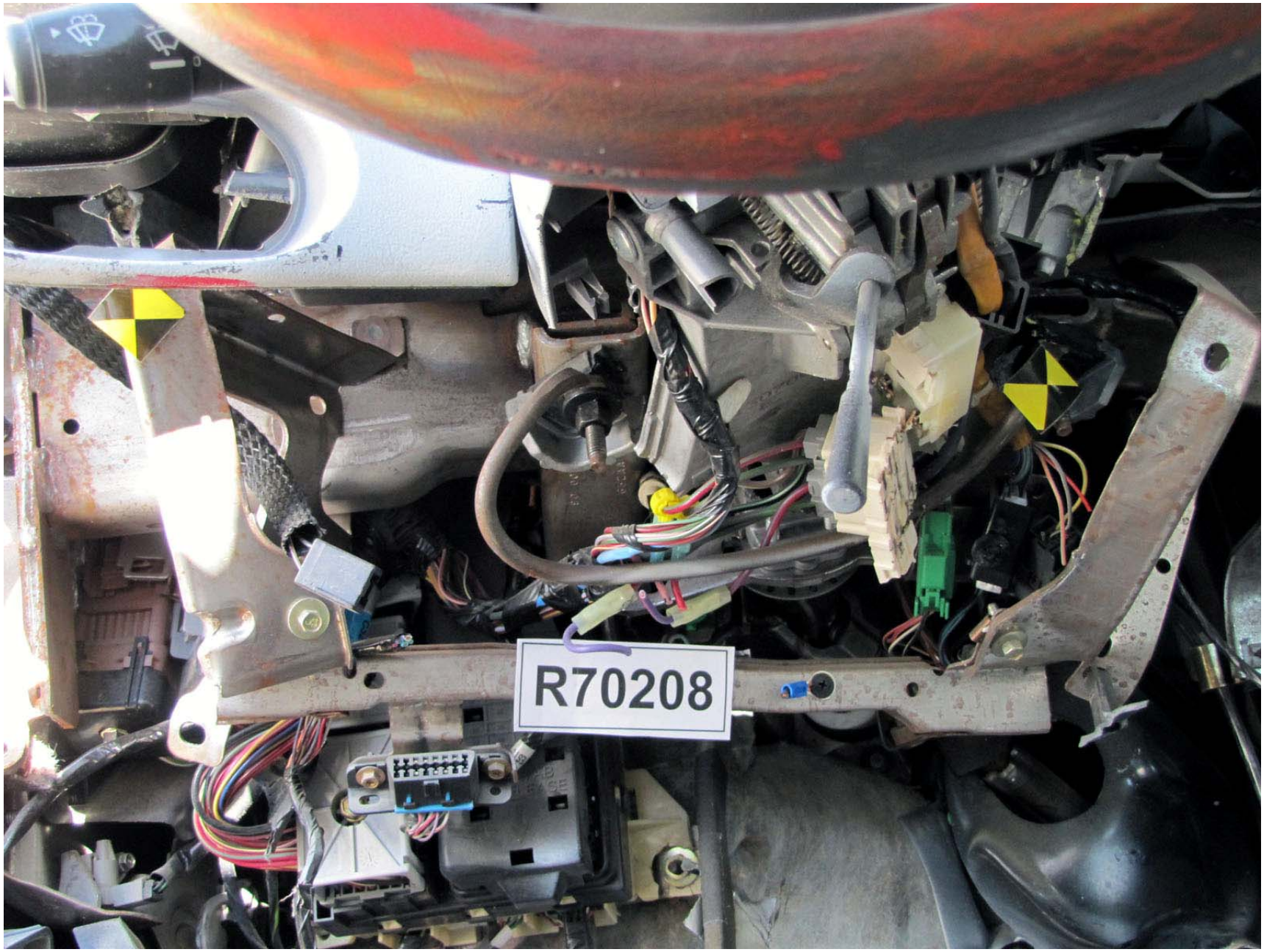

Figure A-246: Test Vehicle Post-Test Driver Side Knee Bolster

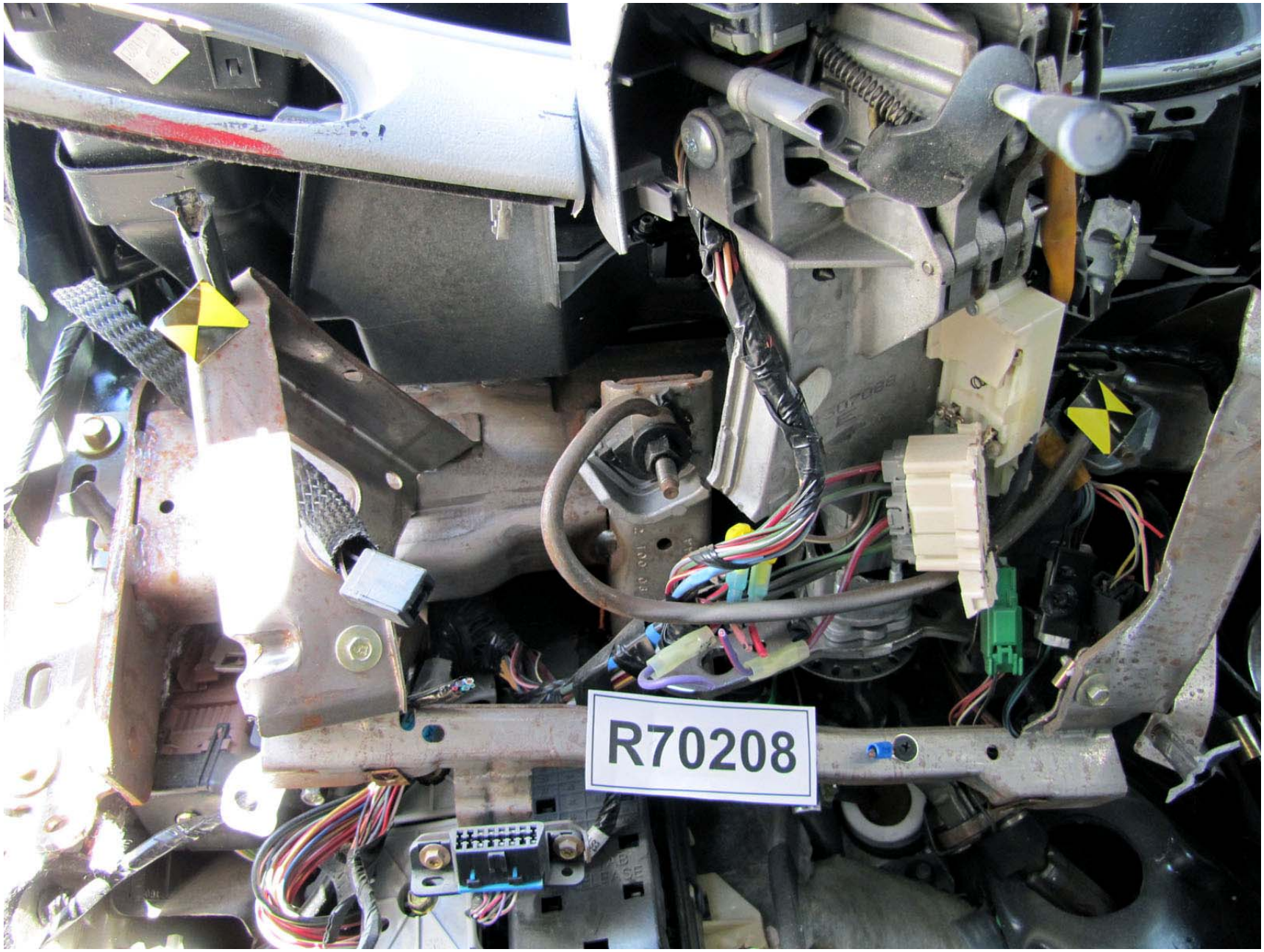

Figure A-247: Test Vehicle Post-Test Driver Side Knee Bolster

Figure A-248: Test Vehicle Pre-Test Driver Dummy Head

Figure A-249: Test Vehicle Post-Test Driver Dummy Head

Figure A-250: Test Vehicle Post-Test Driver Dummy Contact, Airbag

Figure A-251: Test Vehicle Post-Test Driver Dummy Contact, Door Frame

Figure A-252: Test Vehicle Post-Test Driver Dummy Contact, Headrest

Figure A-253: Test Vehicle Pre-Test Rear Door Panel

Figure A-254: Test Vehicle Post-Test Rear Door Panel

Figure A-255: Test Vehicle Pre-Test Passenger Dummy Right Side View

Figure A-256: Test Vehicle Post-Test Passenger Dummy Right Side View

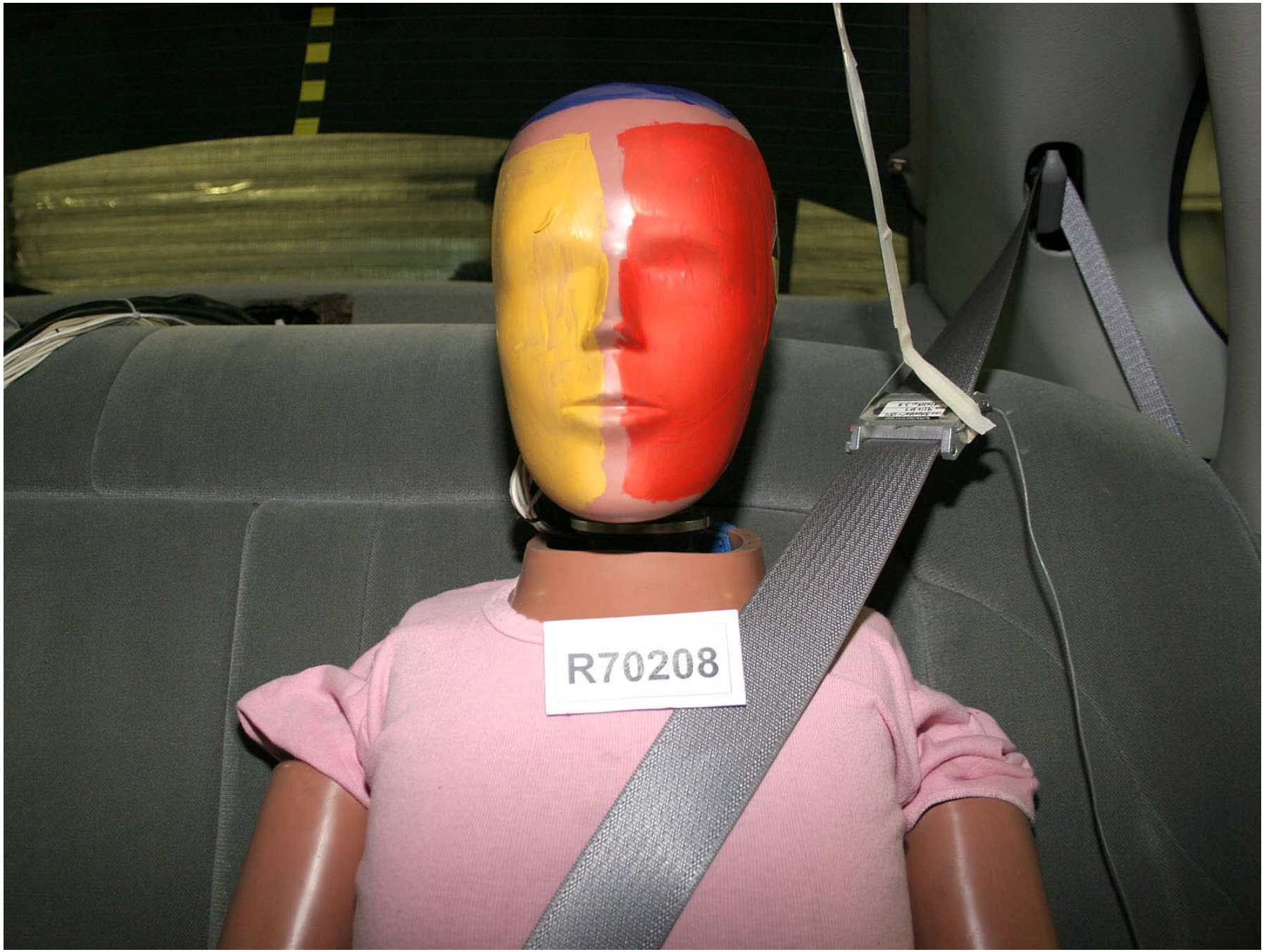

Figure A-257: Test Vehicle Pre-Test Passenger Dummy Front View

Figure A-258: Test Vehicle Post-Test Passenger Dummy Front View

Figure A-259: Test Vehicle Pre-Test Passenger Dummy Left Side View (Door Open)

Photograph Not Available

Figure A-260: Test Vehicle Post-Test Passenger Dummy Left Side View (Door Open)

Figure A-261: Test Vehicle Pre-Test Passenger Dummy Feet Positioning

Figure A-262: Test Vehicle Pre-Test Passenger Dummy Feet Positioning

Figure A-263: Test Vehicle Pre-Test Passenger Dummy Feet Positioning

Figure A-264: Test Vehicle Pre-Test Passenger Dummy Feet Positioning

Photograph Not Available

Figure A-265: Test Vehicle Post-Test Passenger Dummy Feet Positioning

Figure A-266: Test Vehicle Post-Test Passenger Dummy Feet Positioning

Figure A-267: Test Vehicle Post-Test Passenger Dummy Feet Positioning

Figure A-268: Test Vehicle Pre-Test Passenger Dummy Left Side View (Through Window)

Figure A-269: Test Vehicle Post-Test Passenger Dummy Left Side View (Through Window)

Figure A-270: Test Vehicle Pre-Test Passenger Dummy Clearance from Door

Figure A-271: Test Vehicle Post-Test Passenger Dummy Clearance from Door

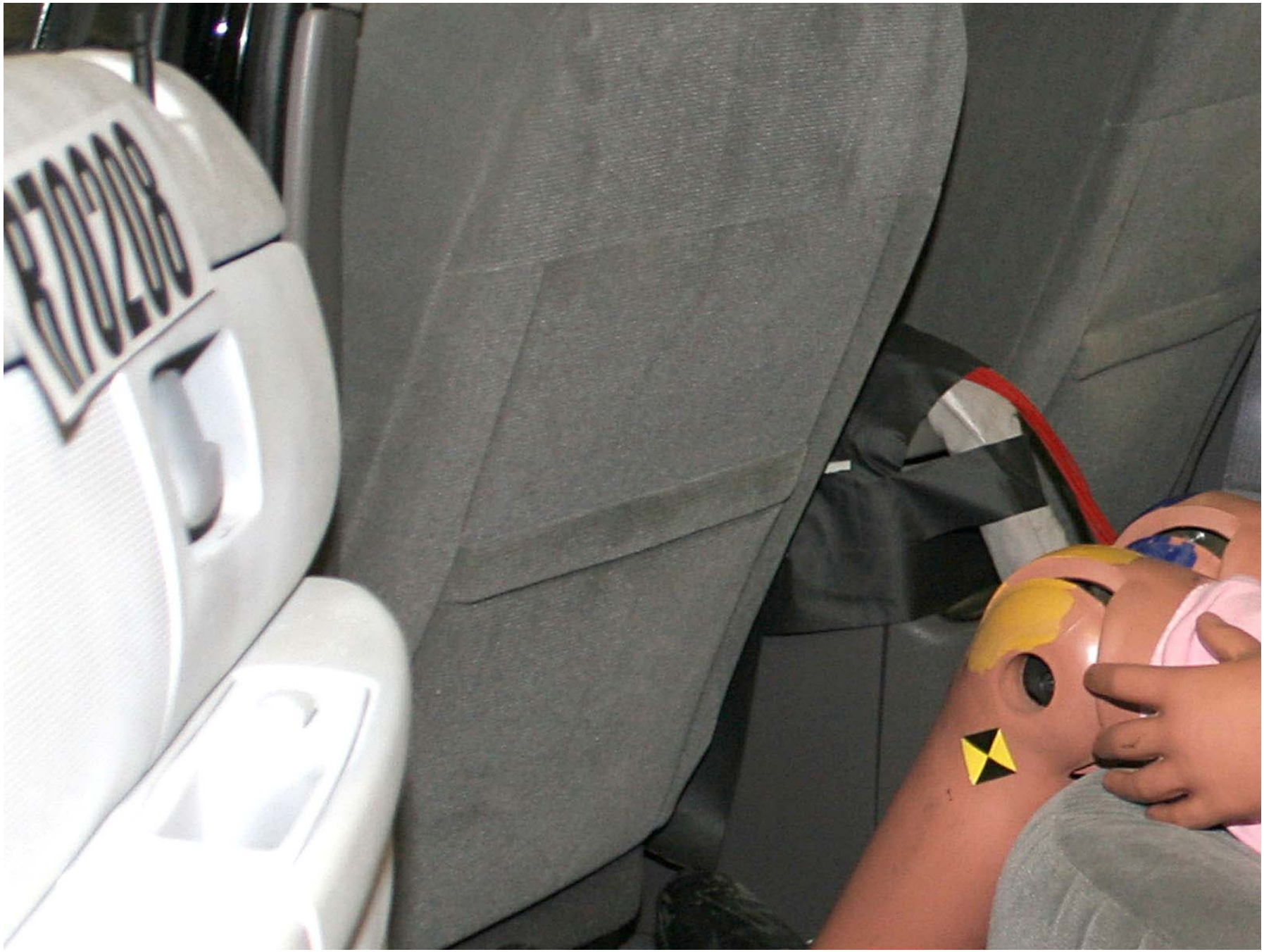

Figure A-272: Test Vehicle Pre-Test Passenger's Side Knee Bolster

Figure A-273: Test Vehicle Post-Test Passenger's Side Knee Bolster

Figure A-274: Test Vehicle Pre-Test Passenger Dummy Head

Figure A-275: Test Vehicle Post-Test Passenger Dummy Head

Figure A-276: Test Vehicle Post-Test Passenger Dummy Contact, Chest

Figure A-277: Test Vehicle Post-Test Passenger Dummy Contact, C-Pillar

Figure A-278: Test Vehicle Post-Test Passenger Dummy Contact, Seat-Back

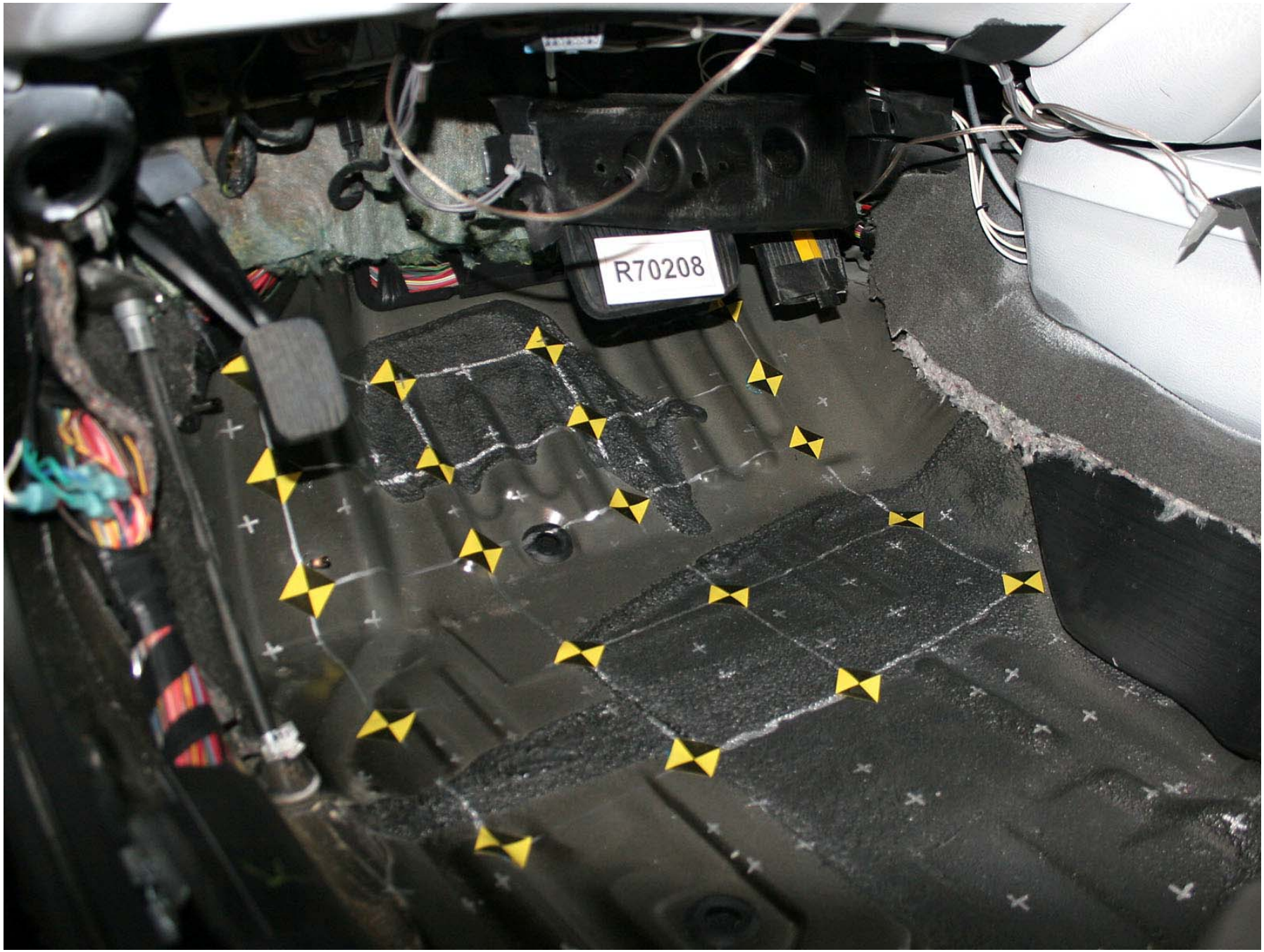

Figure A-279: Test Vehicle Pre-Test Driver Floorpan

Figure A-280: Test Vehicle Pre-Test Driver Floorpan Left ¾ View, Seat Cushion Height

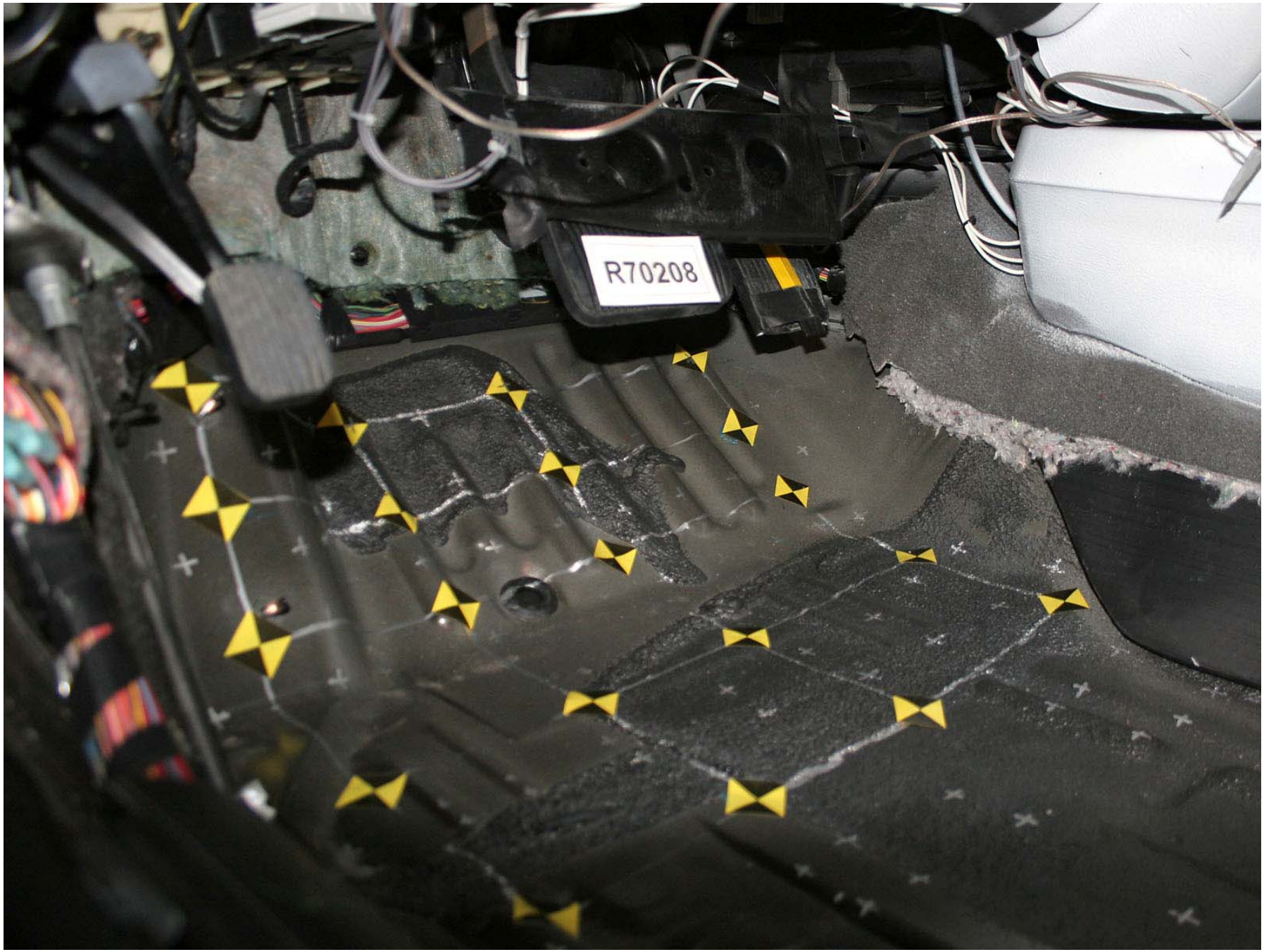

Figure A-281: Test Vehicle Pre-Test Driver Floorpan Left ¾ View, Seat Cushion Height

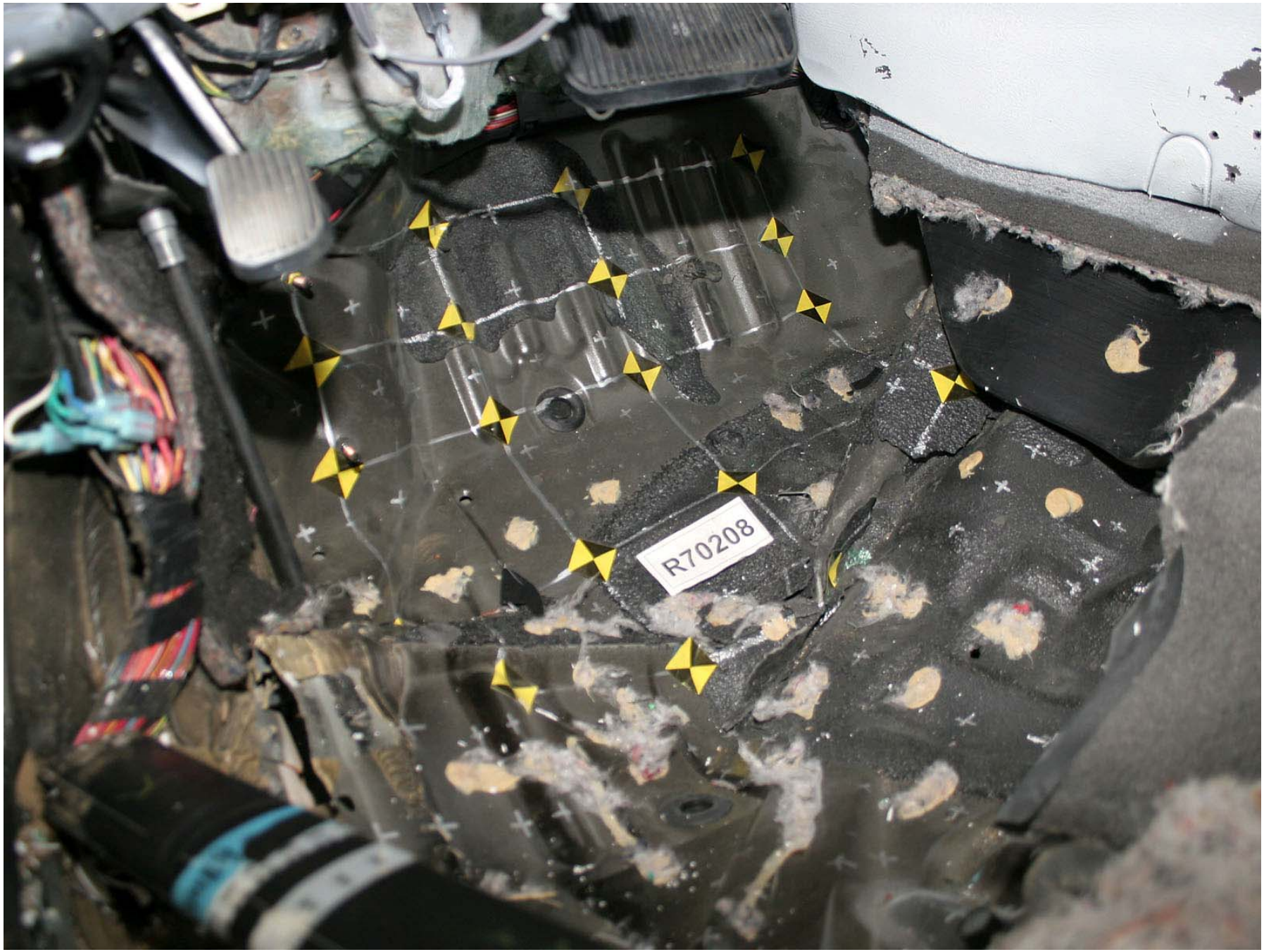

Figure A-282: Test Vehicle Post-Test Driver Floorpan Left ¾ View, Seat Cushion Height

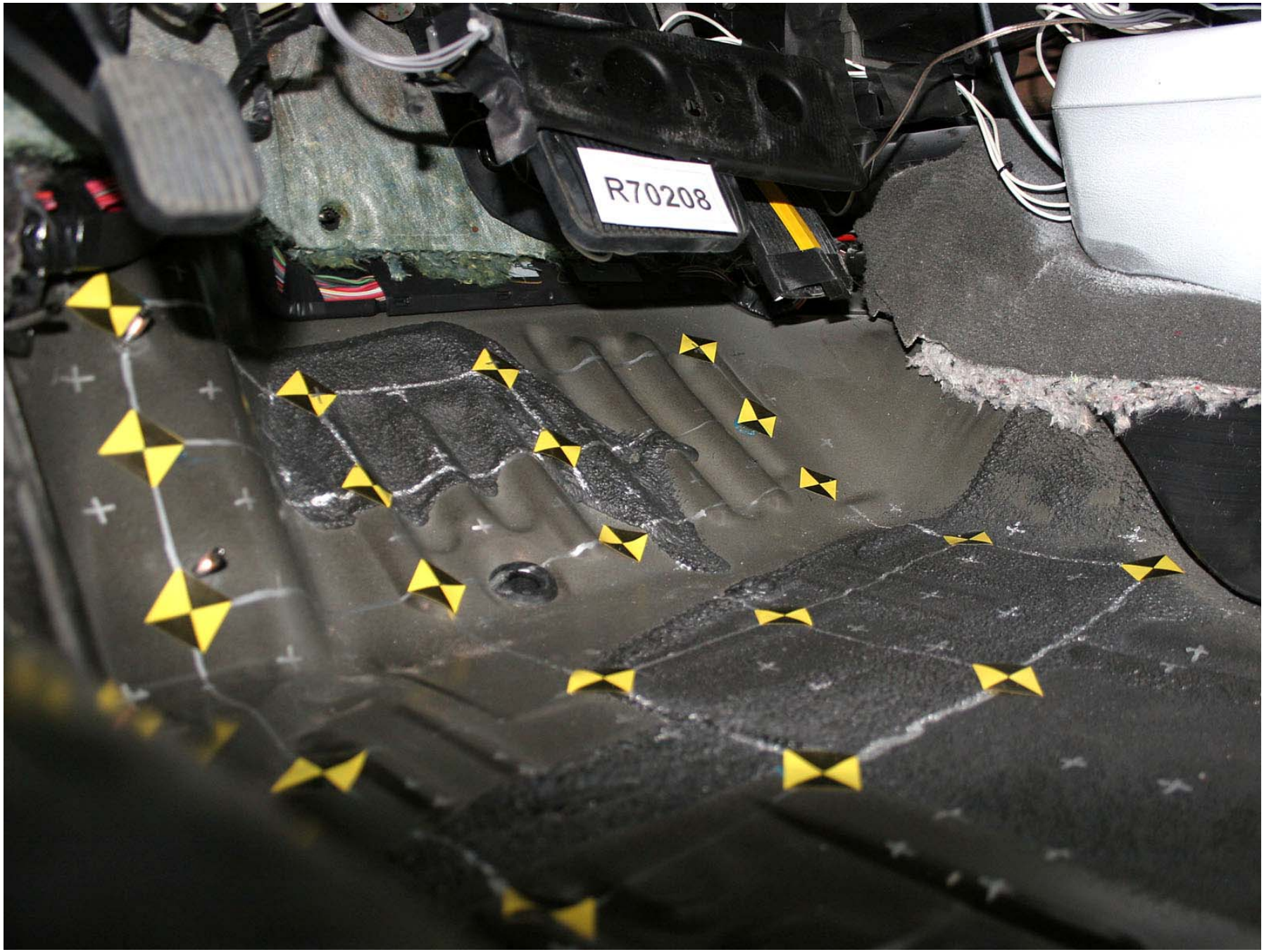

Figure A-283: Test Vehicle Pre-Test Driver Floorpan Left ¾ View, Sill Height

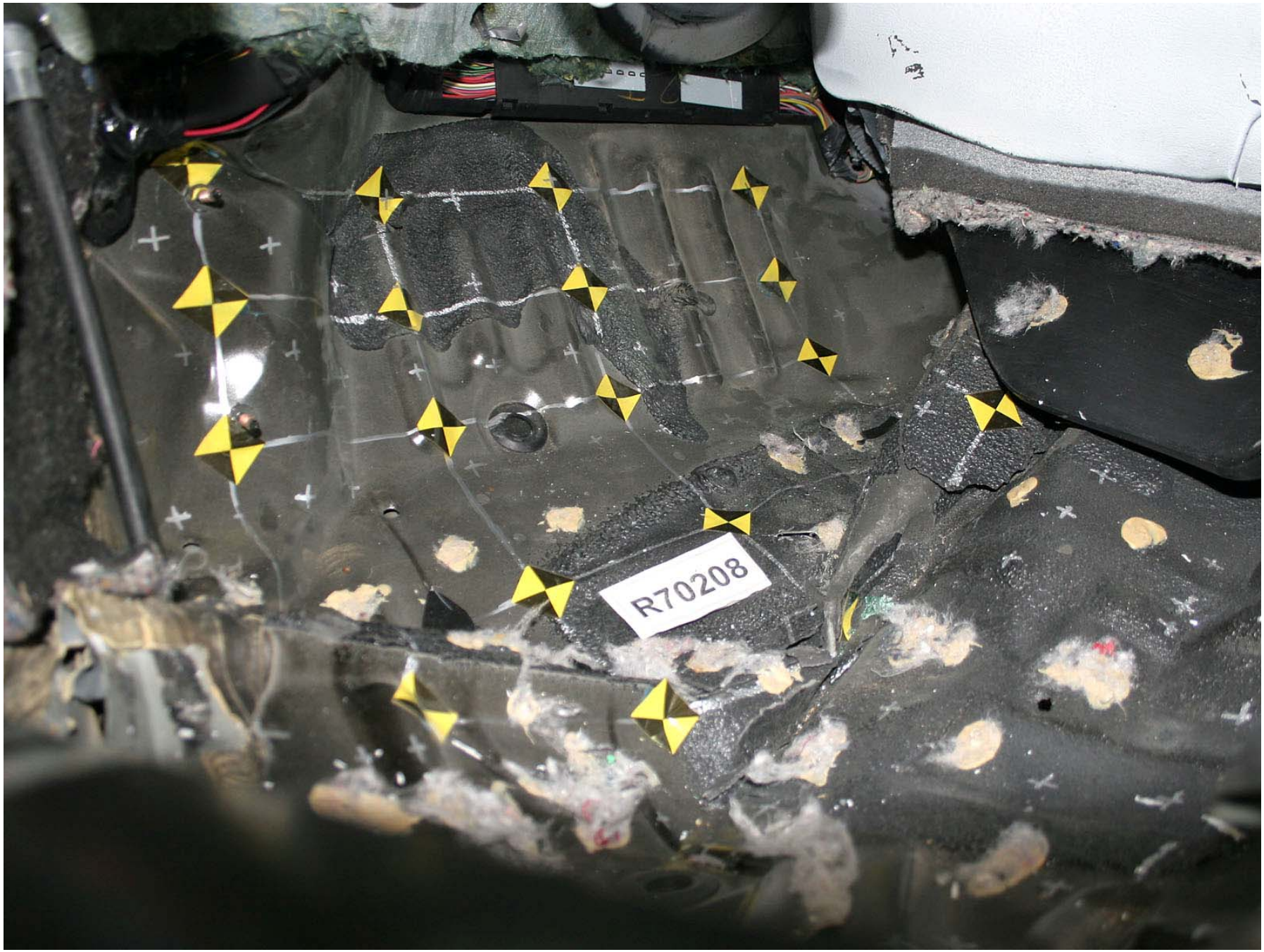

Figure A-284: Test Vehicle Post-Test Driver Floorpan Left ¾ View, Sill Height

Figure A-285: Test Vehicle Pre-Test Driver Floorpan, Seat Cushion Height

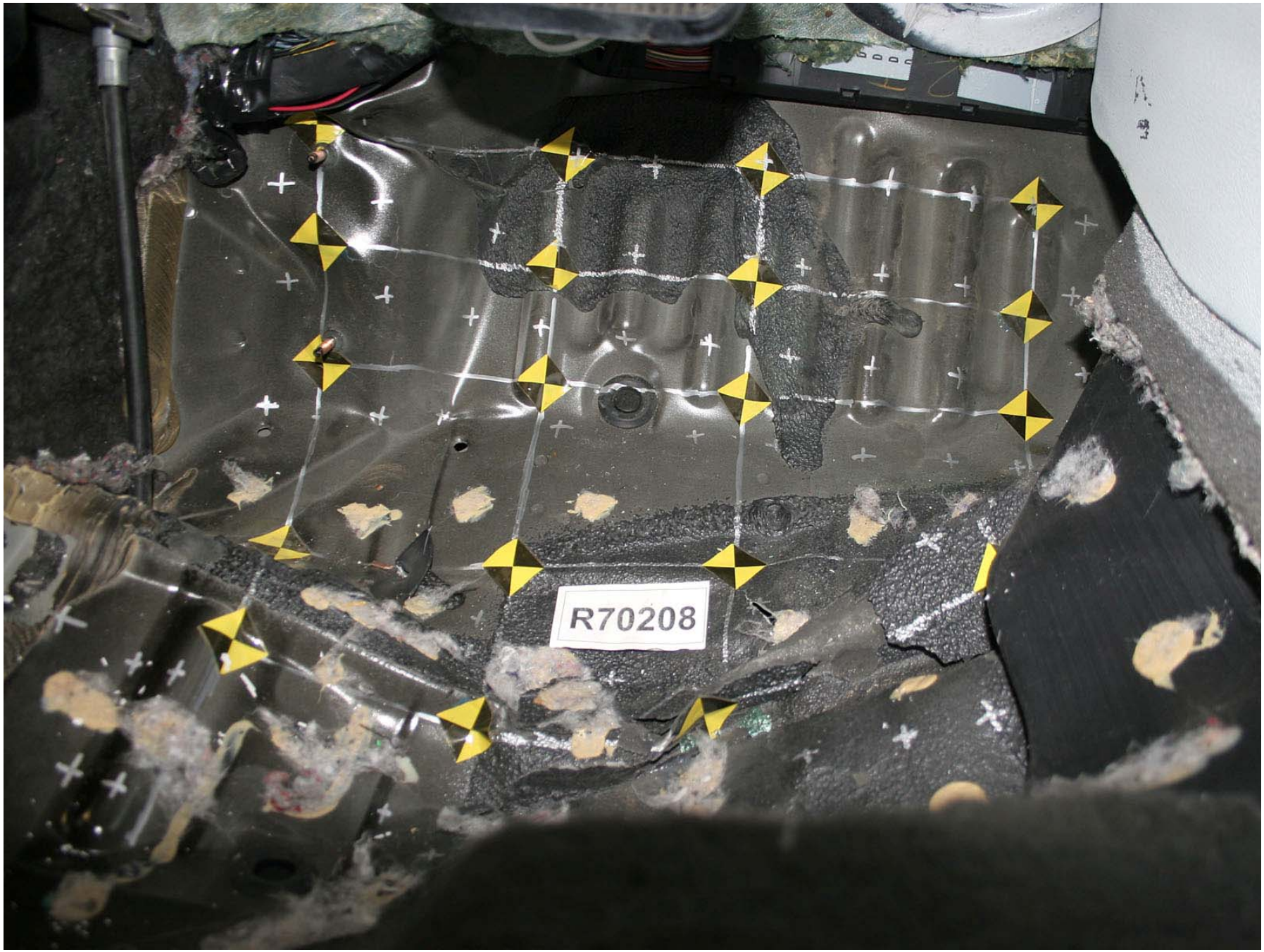

Figure A-286: Test Vehicle Post-Test Driver Floorpan, Seat Cushion Height

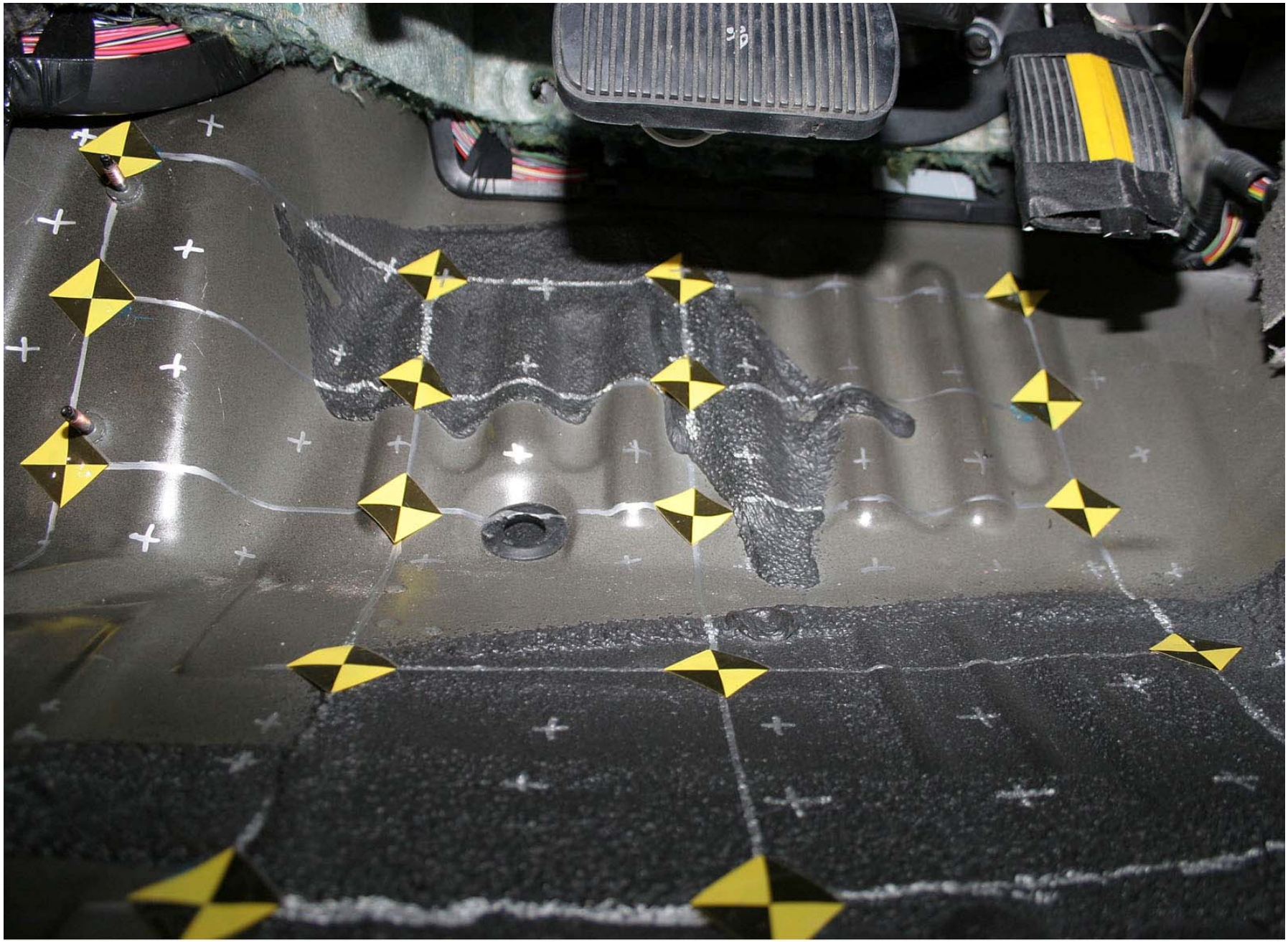

Figure A-287: Test Vehicle Pre-Test Driver Floorpan, Sill Height

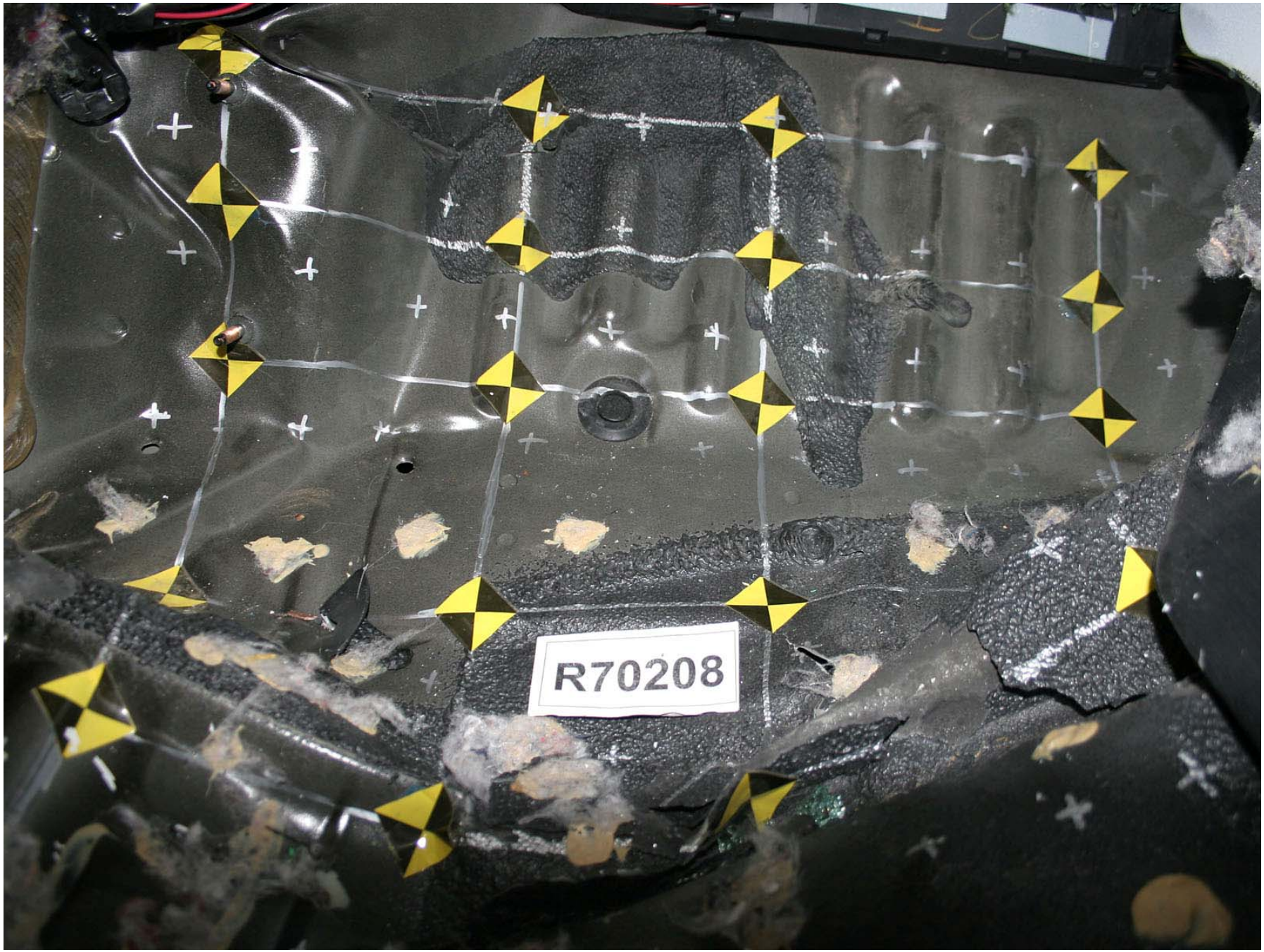

Figure A-288: Test Vehicle Post-Test Driver Floorpan, Sill Height

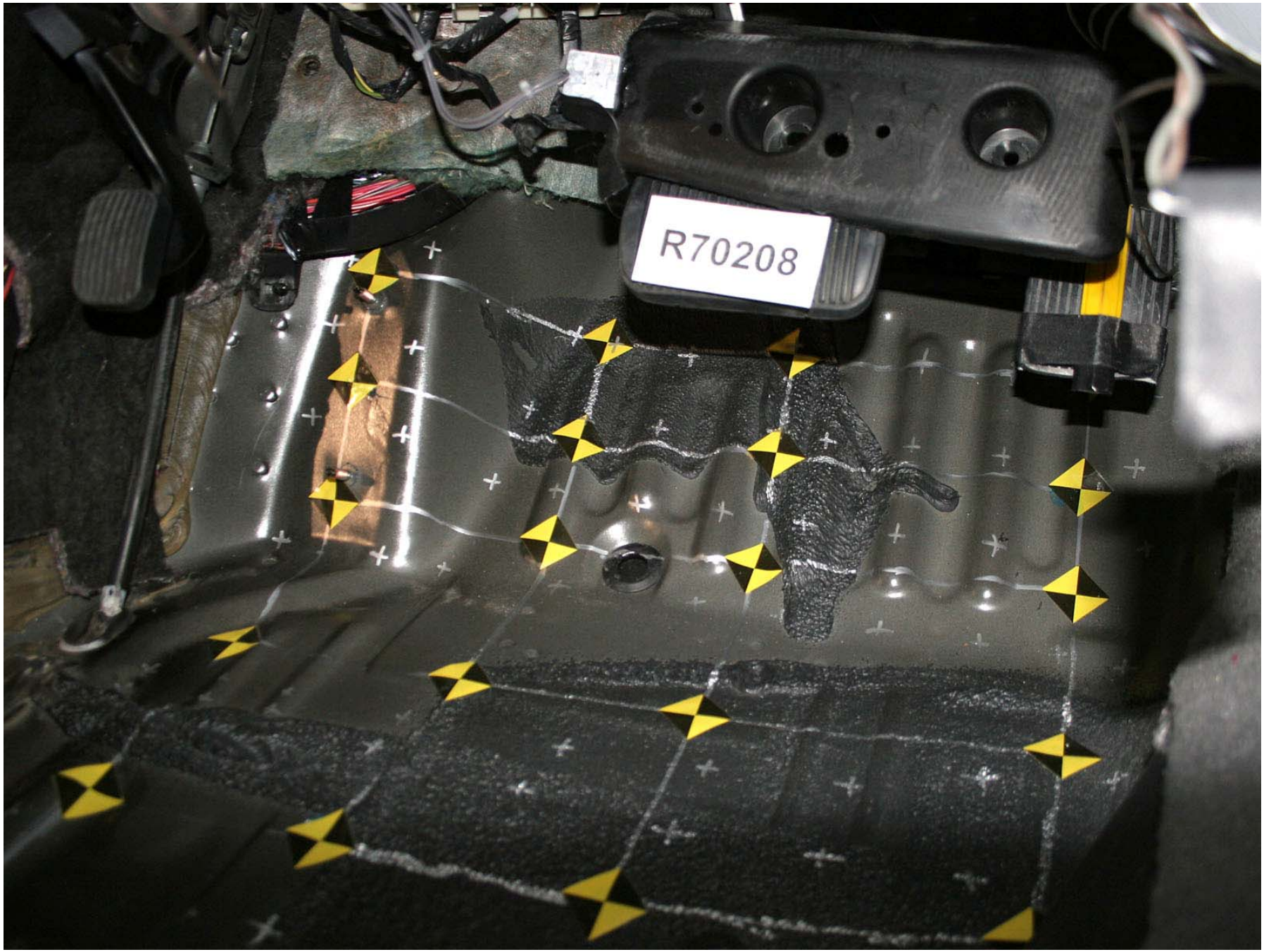

Figure A-289: Test Vehicle Pre-Test Driver Floorpan Right ¾ View, Seat Cushion Height

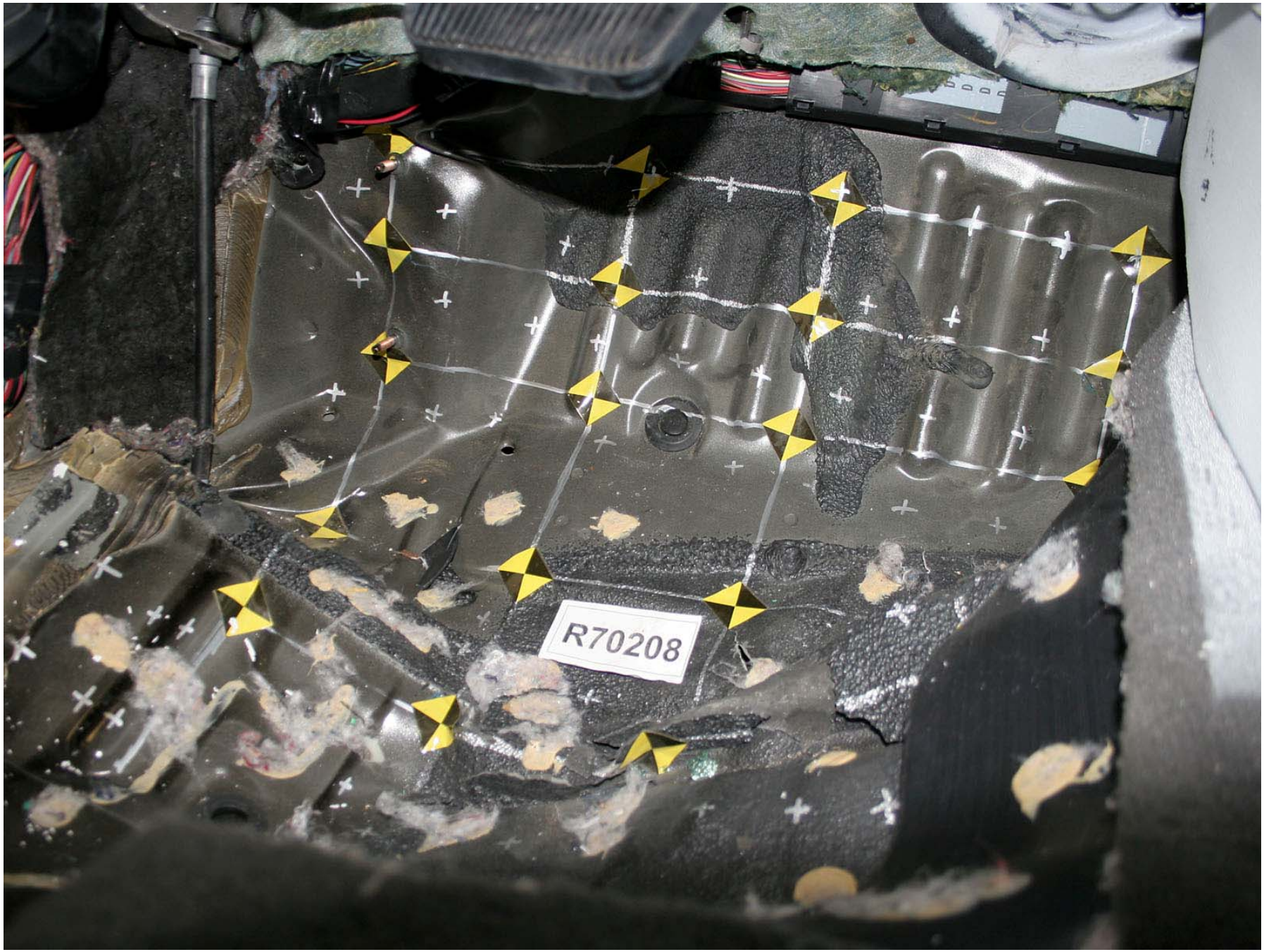

Figure A-290: Test Vehicle Post-Test Driver Floorpan Right ¾ View, Seat Cushion Height

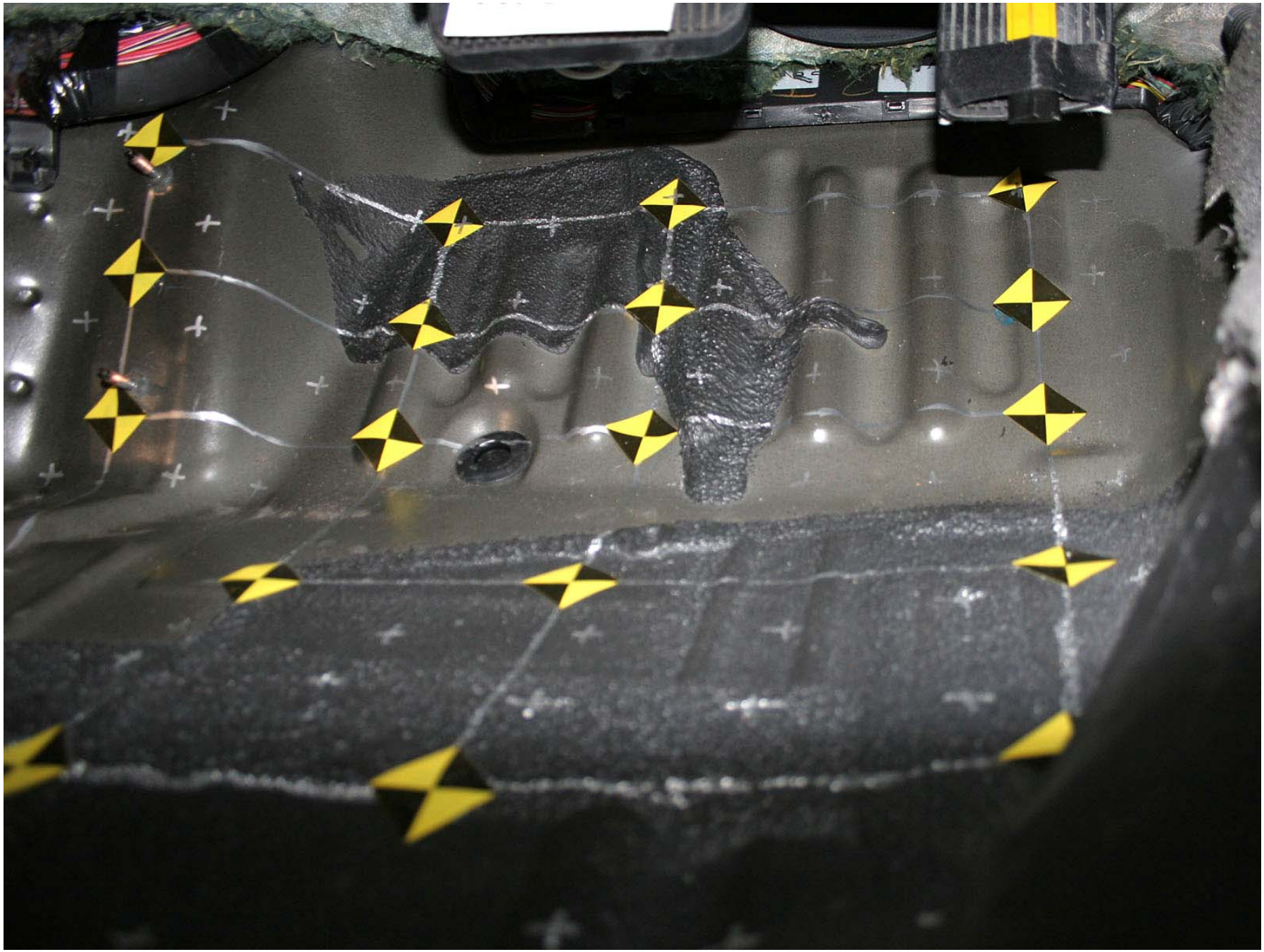

Figure A-291: Test Vehicle Pre-Test Driver Floorpan Right ¾ View, Sill Height

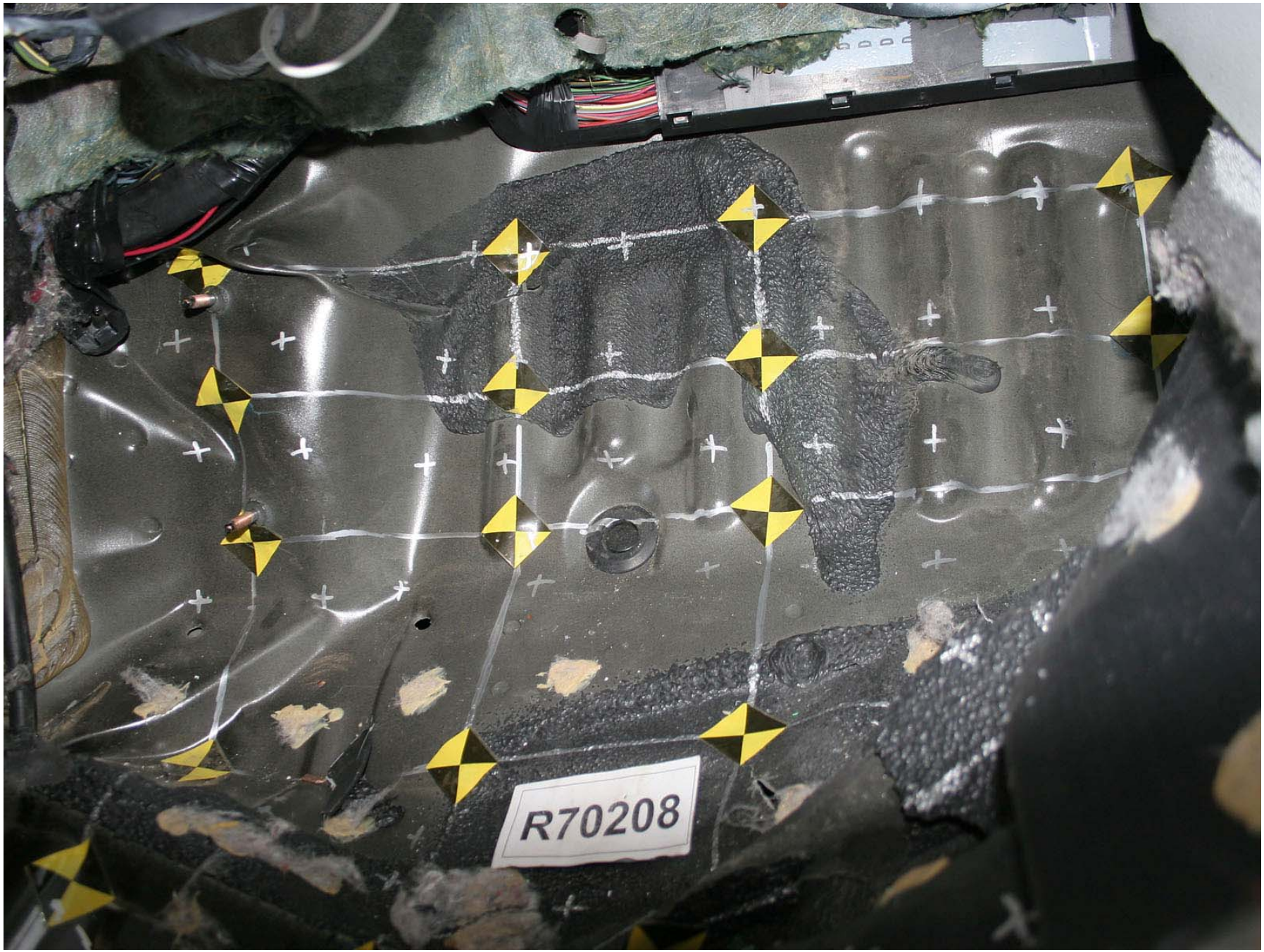

Figure A-292: Test Vehicle Post-Test Driver Floorpan Right ¾ View, Sill Height

Figure A-293: Test Vehicle Pre-Test Accelerator Pedal, Seat Cushion Height

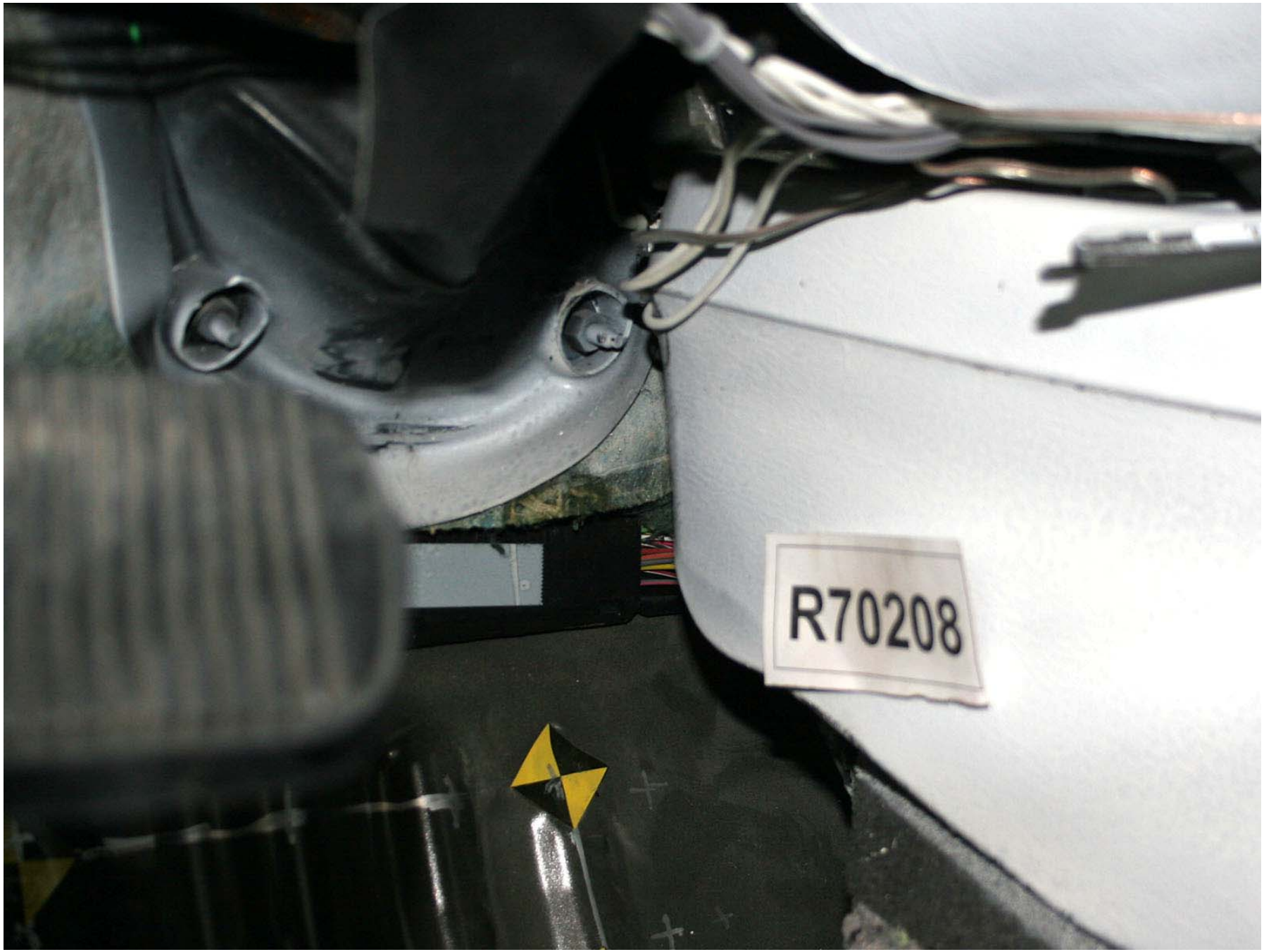

Figure A-294: Test Vehicle Post-Test Accelerator Pedal, Seat Cushion Height

Figure A-295: Test Vehicle Pre-Test Accelerator Pedal Side View, In Front of Brake Pedal

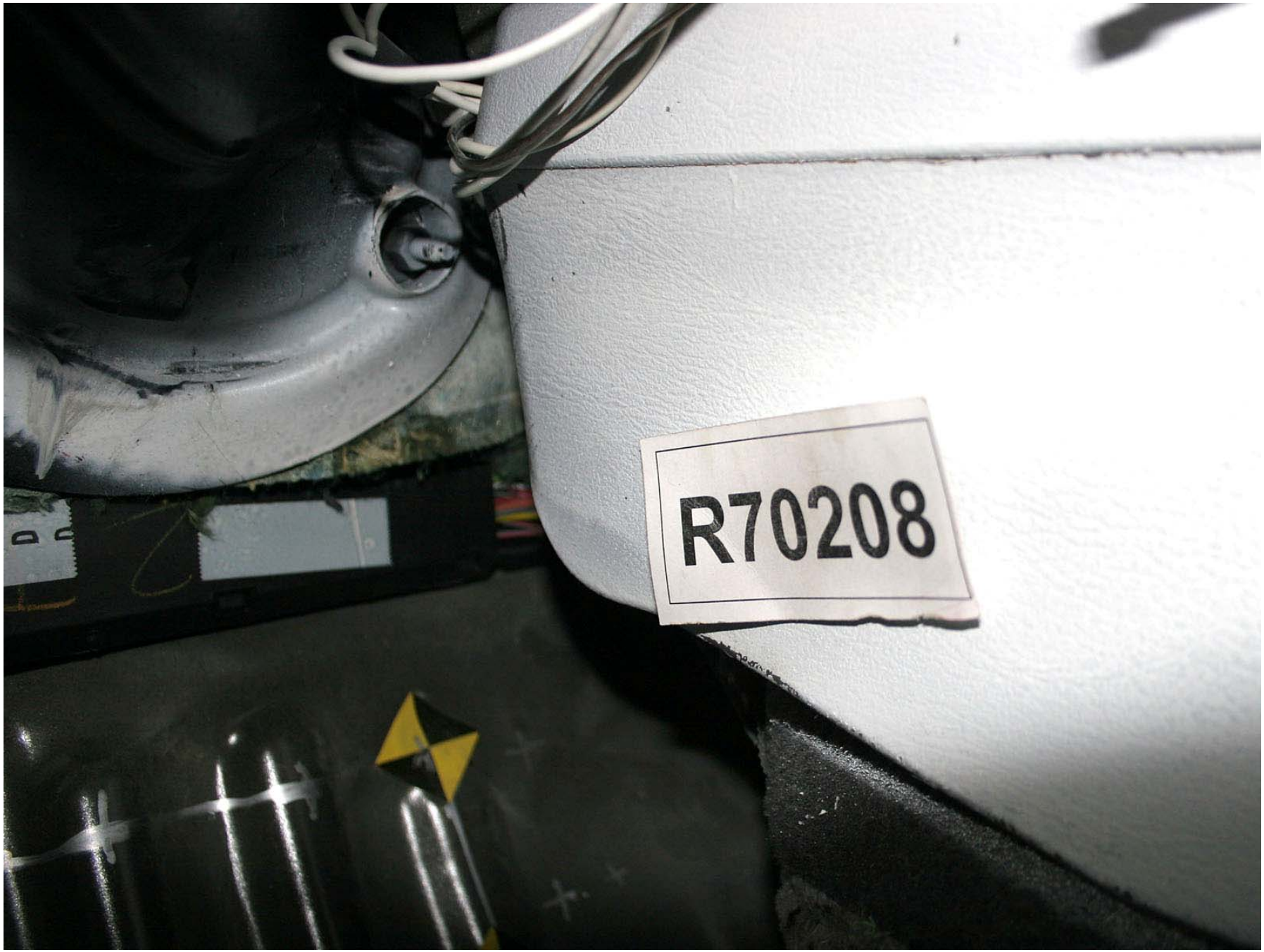

Figure A-296: Test Vehicle Pre-Test Accelerator Pedal Side View, Behind Brake Pedal

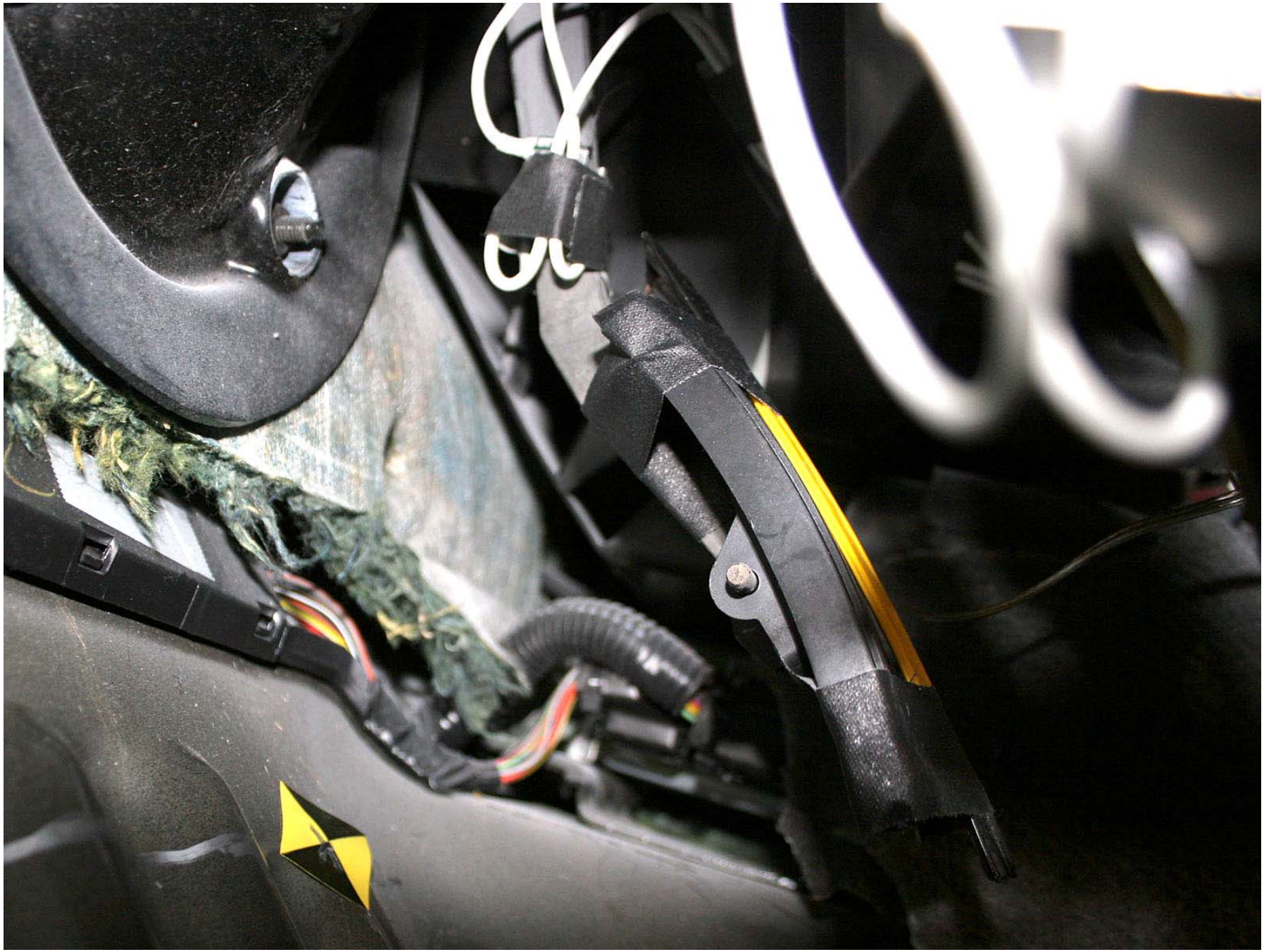

Figure A-297: Test Vehicle Post-Test Accelerator Pedal Side View, Behind Brake Pedal

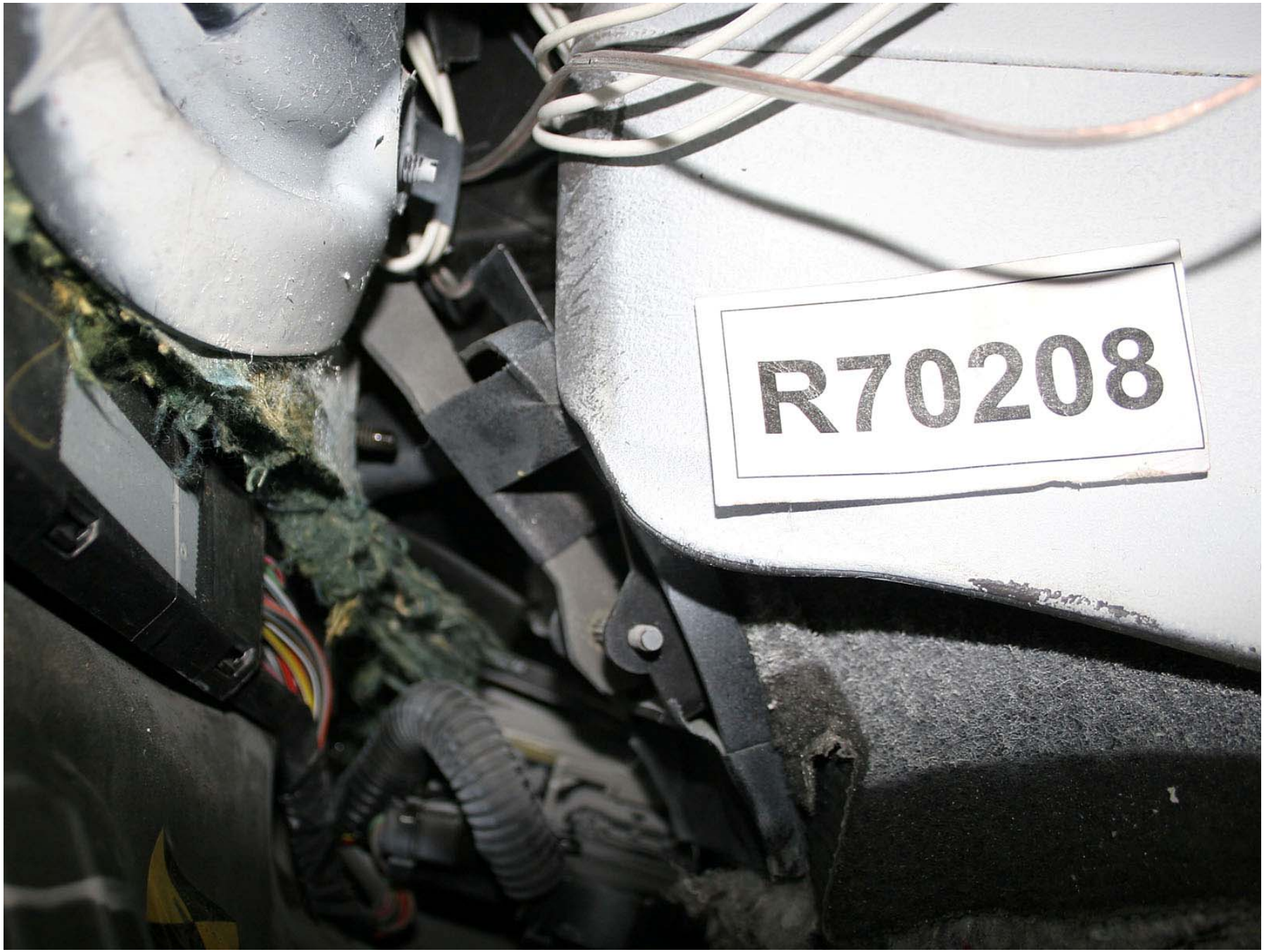

Figure A-298: Test Vehicle Pre-Test Foot Rest , Seat Cushion Height

Figure A-299: Test Vehicle Post-Test Foot Rest , Seat Cushion Height

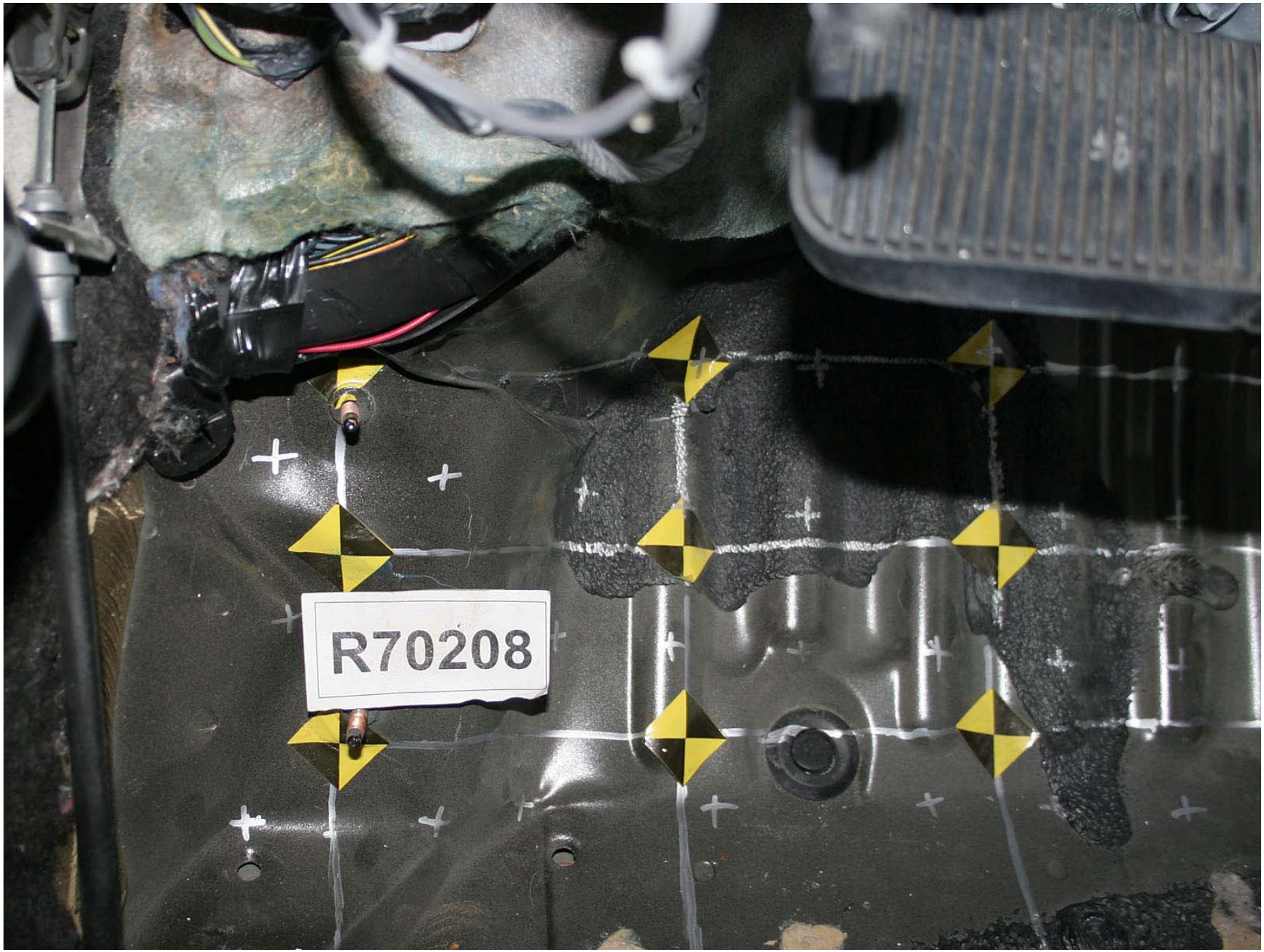

Figure A-300: Test Vehicle Pre-Test Foot Rest, Sill Height

Figure A-301: Test Vehicle Pre-Test Foot Rest, Sill Height

Figure A-302: Test Vehicle Post-Test Foot Rest, Sill Height

Figure A-303: Test Vehicle Pre-Test Structural Member Crush Measurement (Hood Closed)

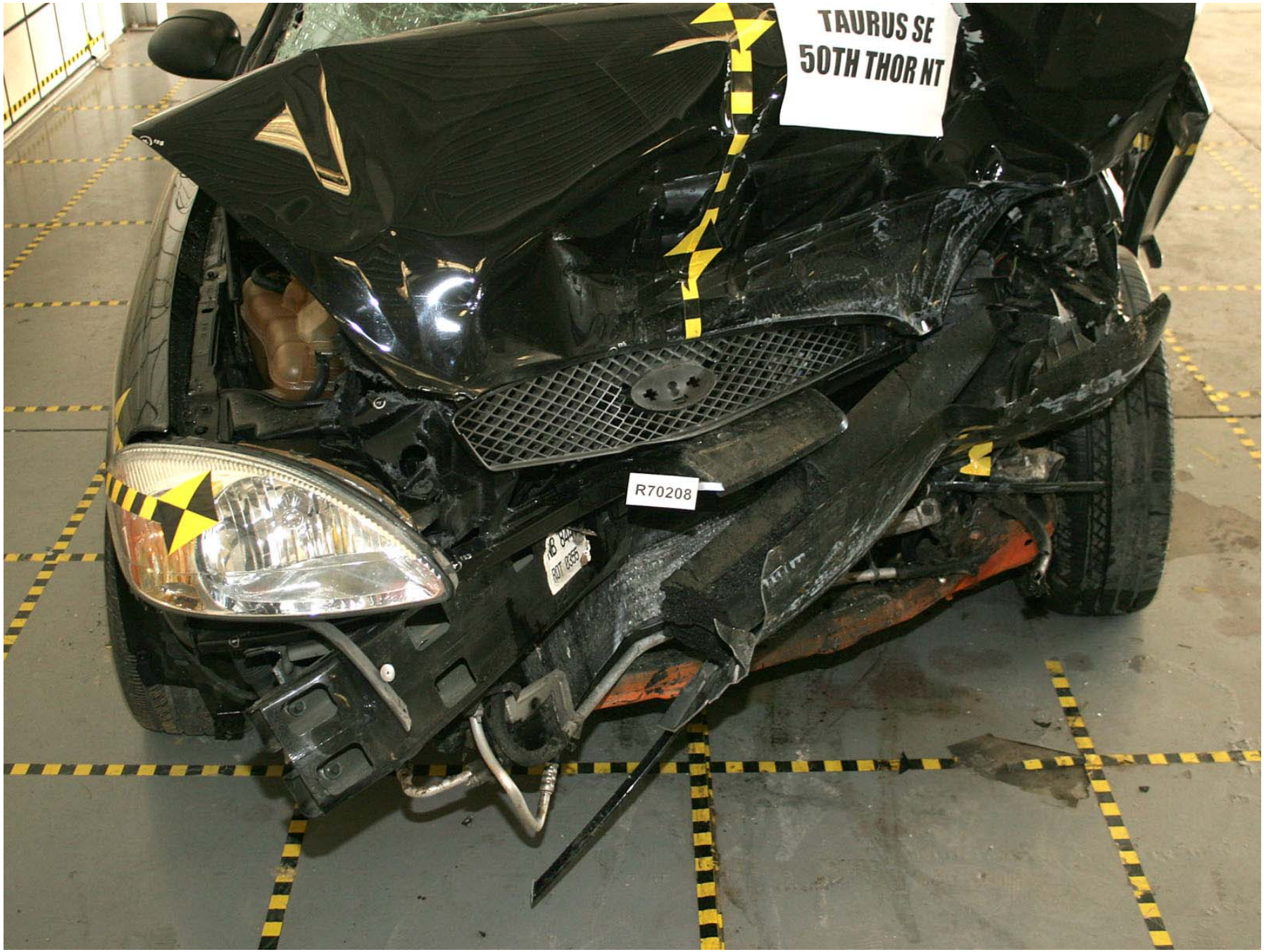

Figure A-304: Test Vehicle Post-Test Structural Member Crush Measurement (Hood Closed)

Figure A-305: Test Vehicle Pre-Test Structural Member Crush Measurement (Hood Closed)

Figure A-306: Test Vehicle Post-Test Structural Member Crush Measurement (Hood Closed)

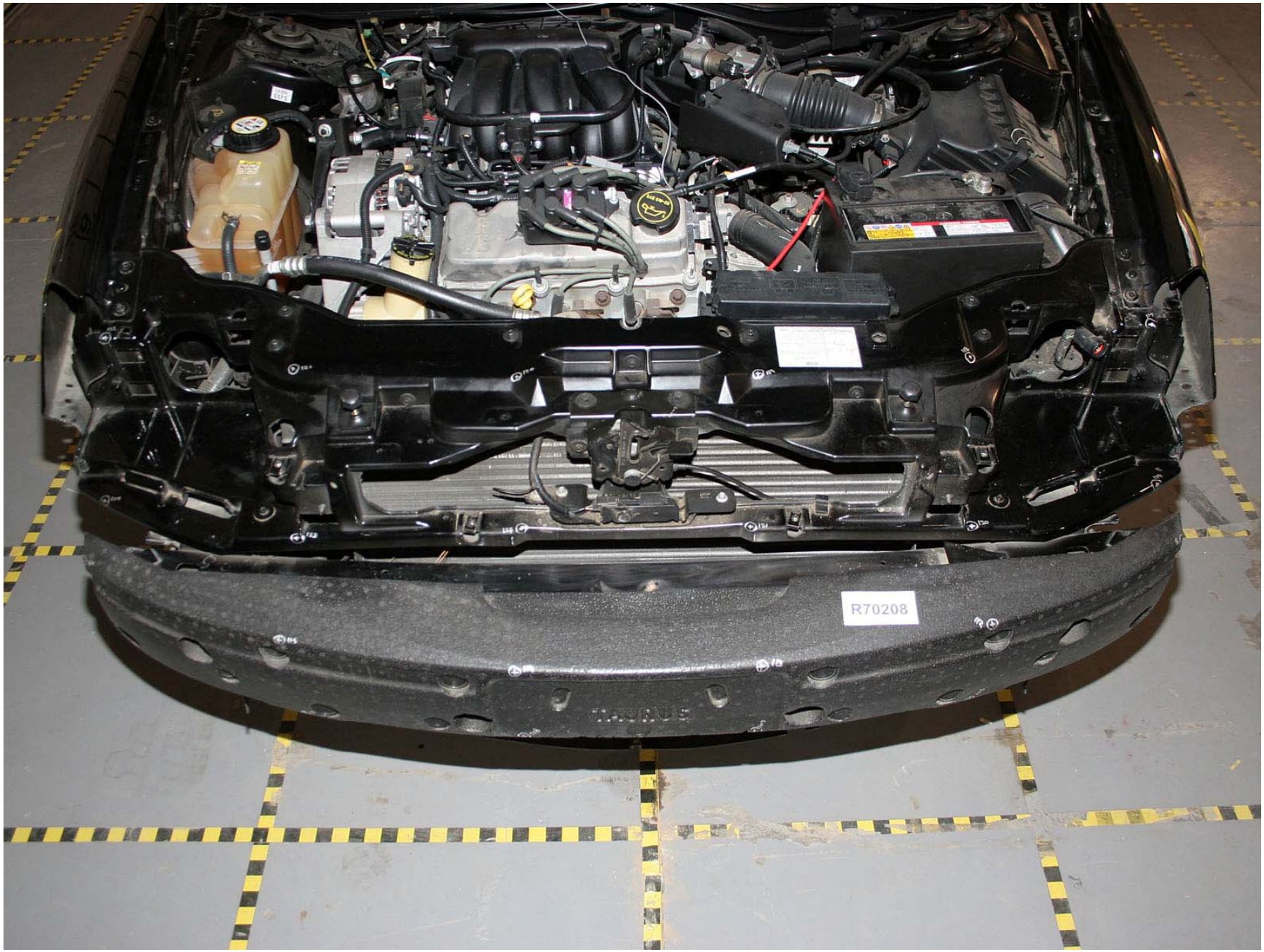

Figure A-307: Test Vehicle Pre-Test Structural Member Crush Measurement (Hood Open)

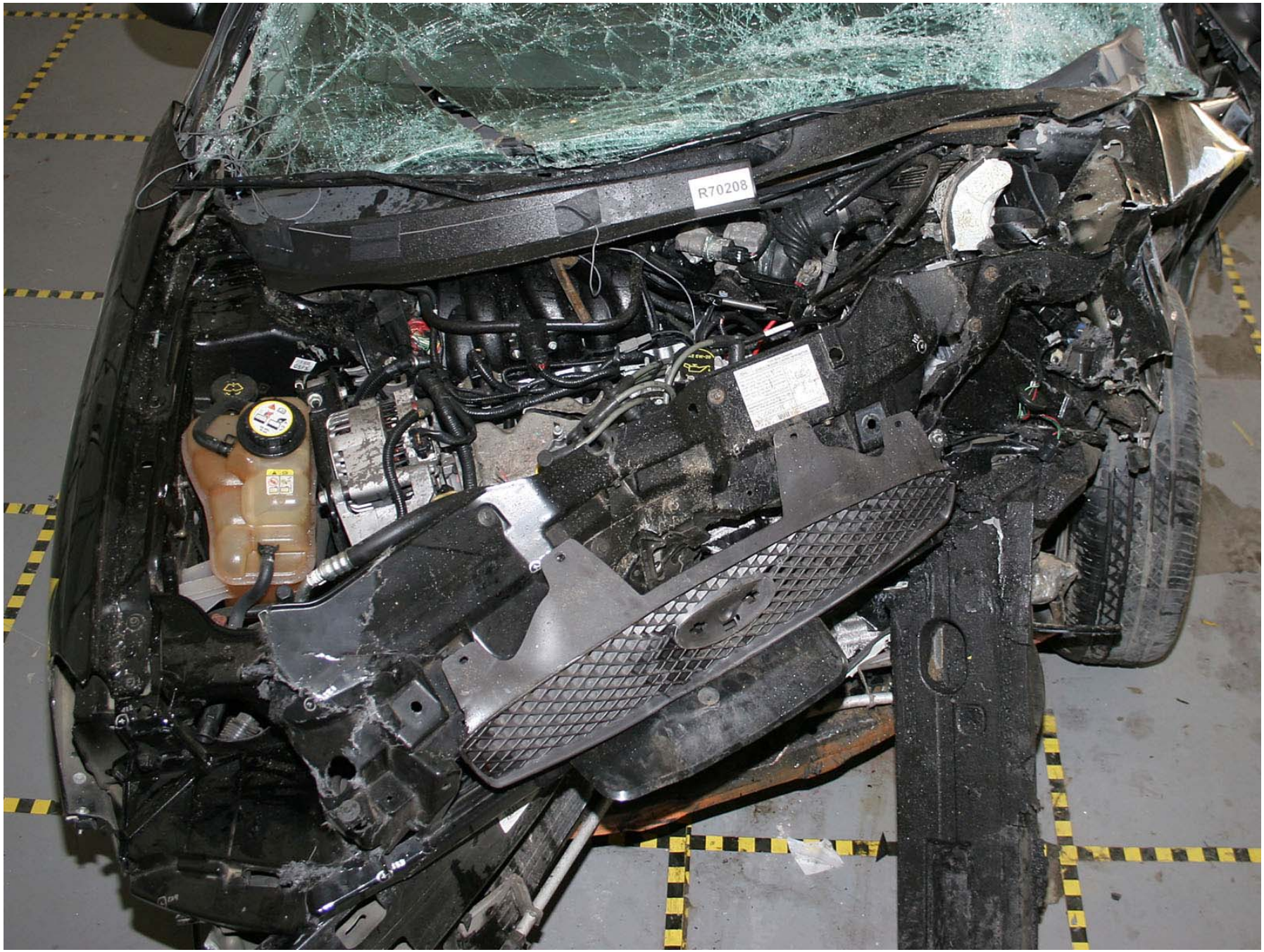

Figure A-308: Test Vehicle Post-Test Structural Member Crush Measurement (Hood Open)

Figure A-309: Test Vehicle Pre-Test Structural Member Crush Measurement (Hood Open)

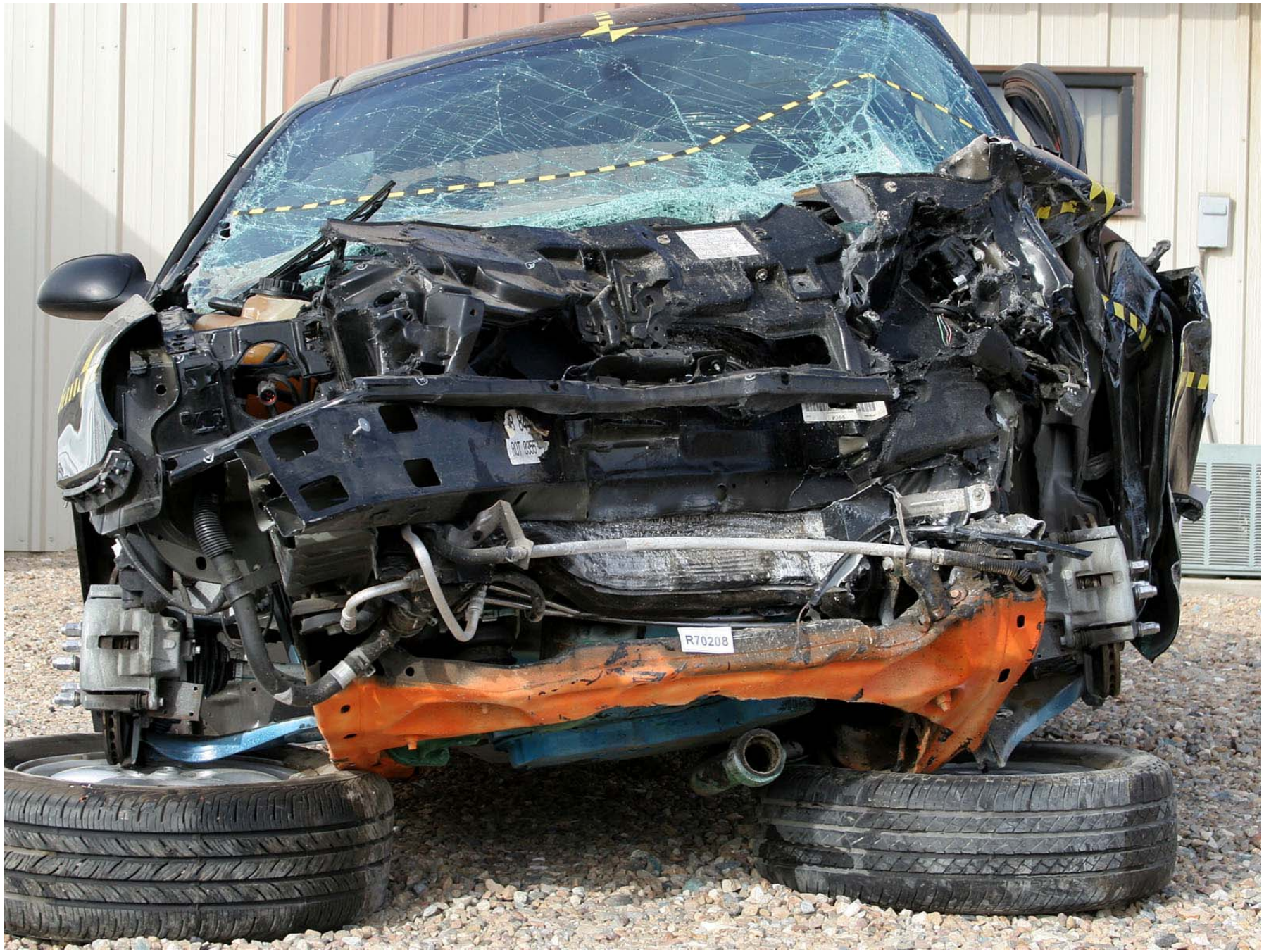

Figure A-310: Test Vehicle Post-Test Structural Member Crush Measurement (Hood Open)

Figure A-311: Test Vehicle Post-Test Windshield Separation

Figure A-312: Test Vehicle Post-Test Windshield Separation Close Up

Figure A-313: Test Vehicle Post-Test Driver Side Floorpan

Figure A-314: Test Vehicle Post-Test Driver Side Floorpan Close Up

Figure A-315: Test Vehicle Pre-Test Front View of Deformable Barrier

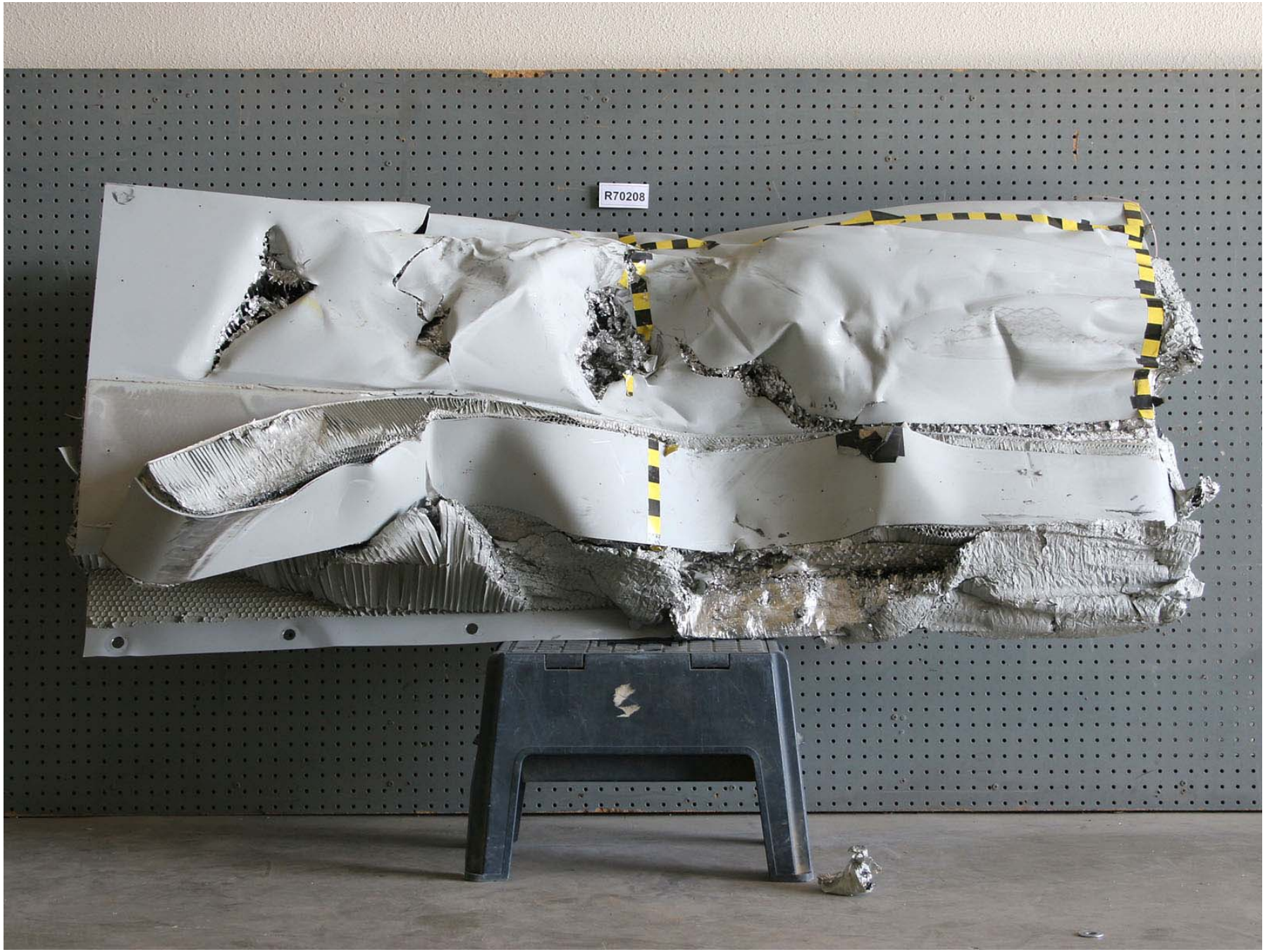

Figure A-316: Test Vehicle Post-Test Front View of Deformable Barrier

Figure A-317: Test Vehicle Pre-Test Top View of Deformable Barrier

Figure A-318: Test Vehicle Post-Test Top View of Deformable Barrier

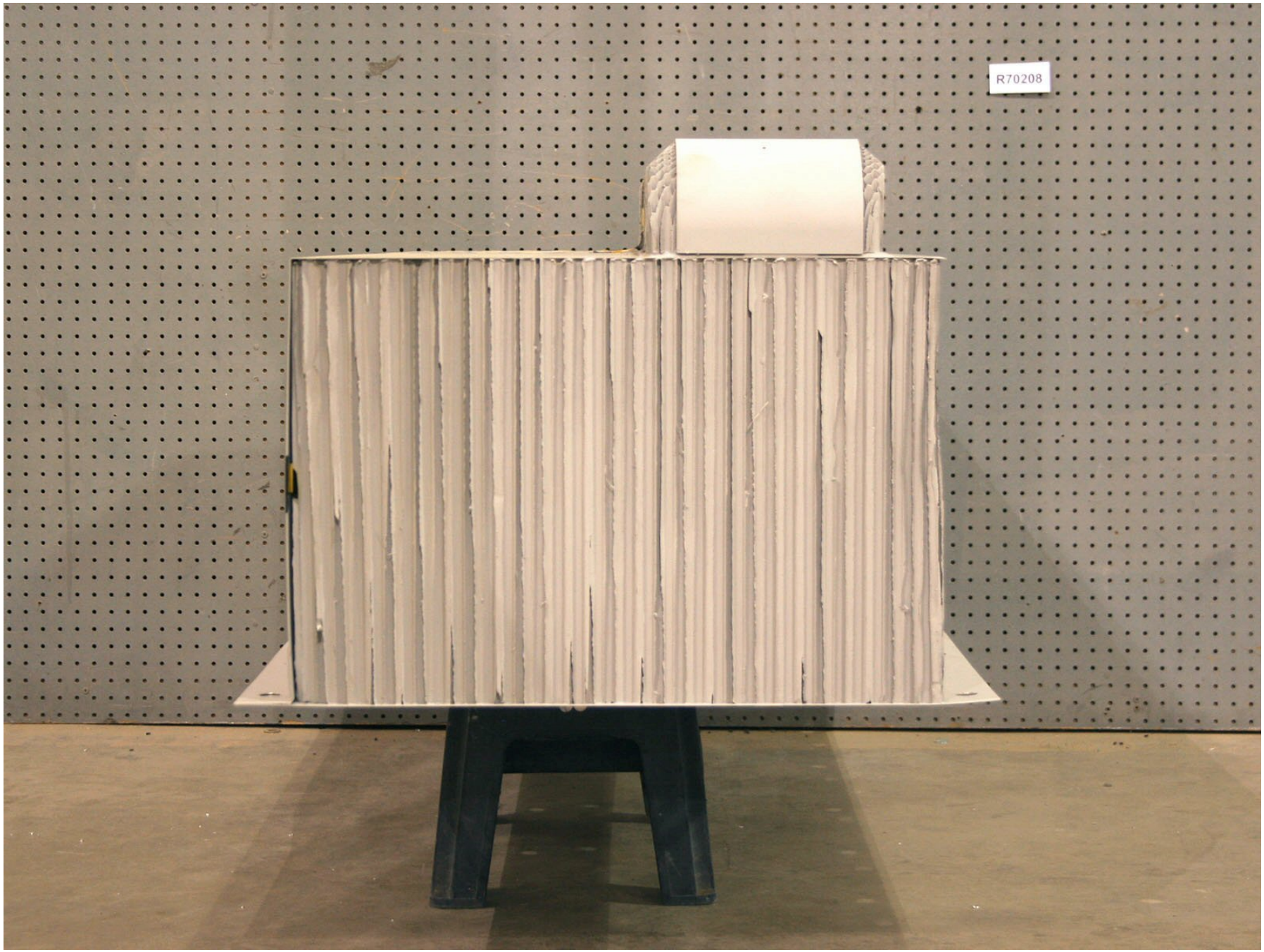

Figure A-319: Test Vehicle Pre-Test Right Side View of Deformable Barrier

Figure A-320: Test Vehicle Post-Test Right Side View of Deformable Barrier

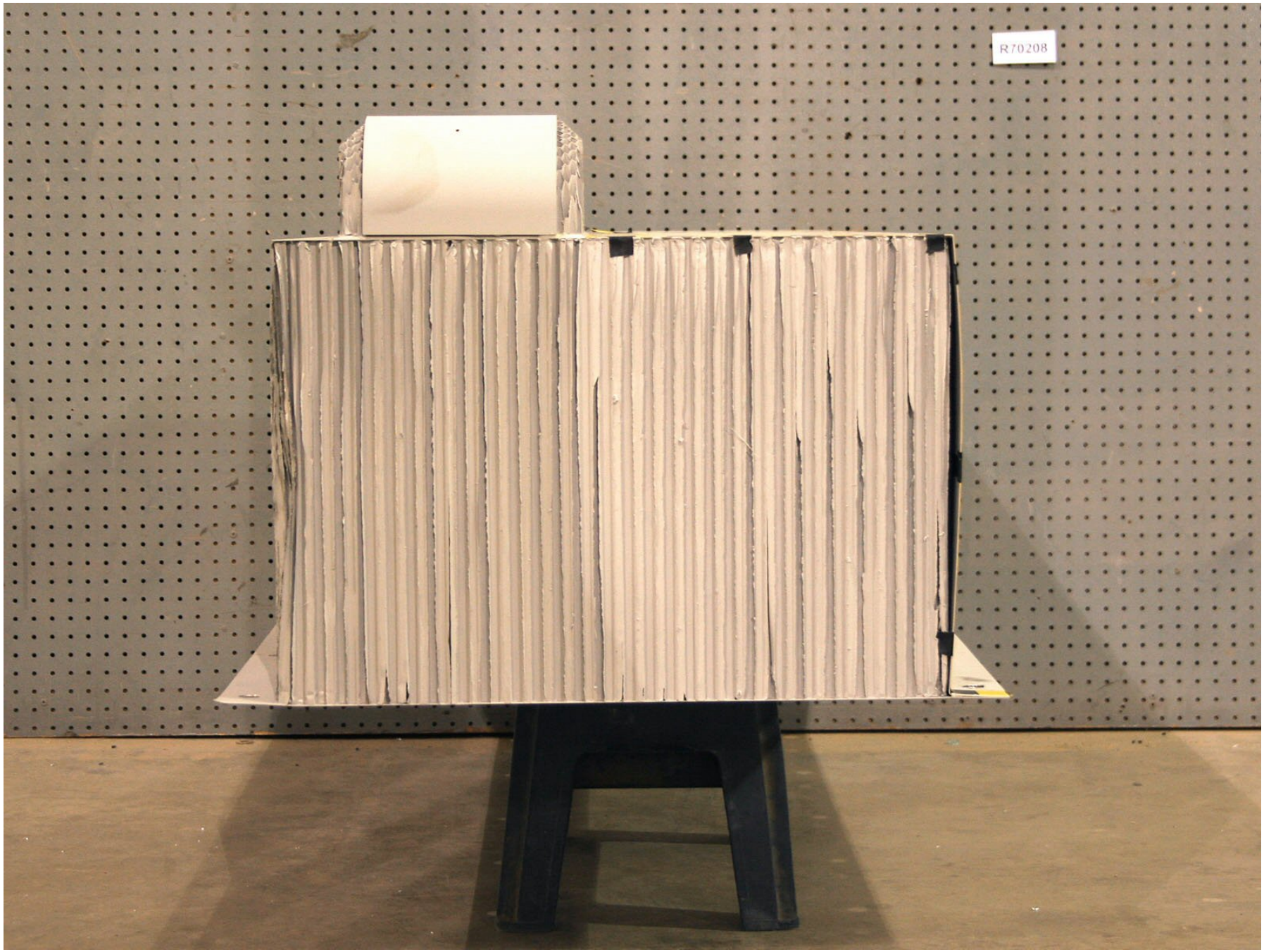

Figure A-321: Test Vehicle Pre-Test Left Side View of Deformable Barrier

Figure A-322: Test Vehicle Post-Test Left Side View of Deformable Barrier

Figure A-323: Test Vehicle on Rollover Device (0°)

Figure A-324: Test Vehicle on Rollover Device (90°)

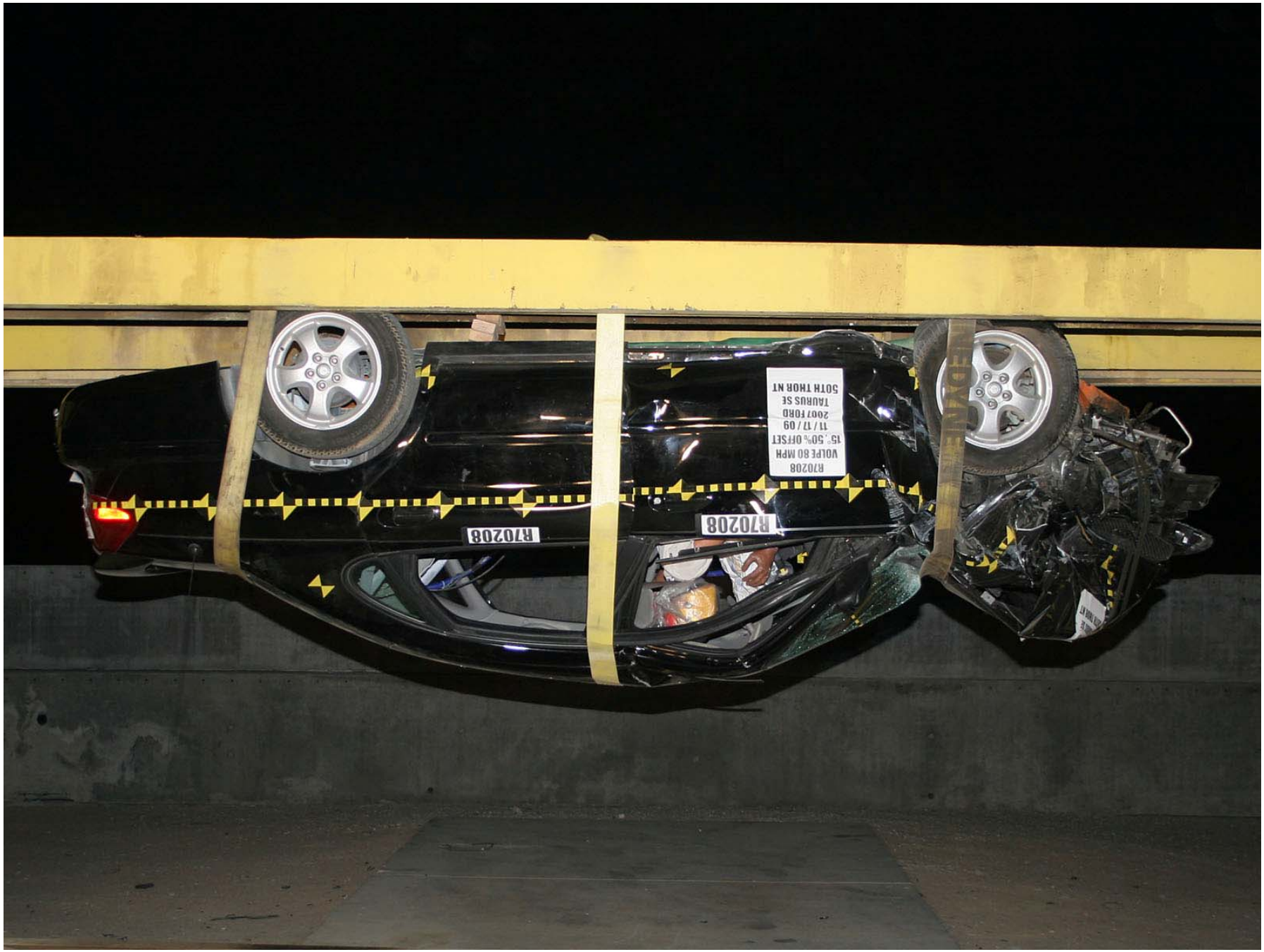

Figure A-325: Test Vehicle on Rollover Device (180°)

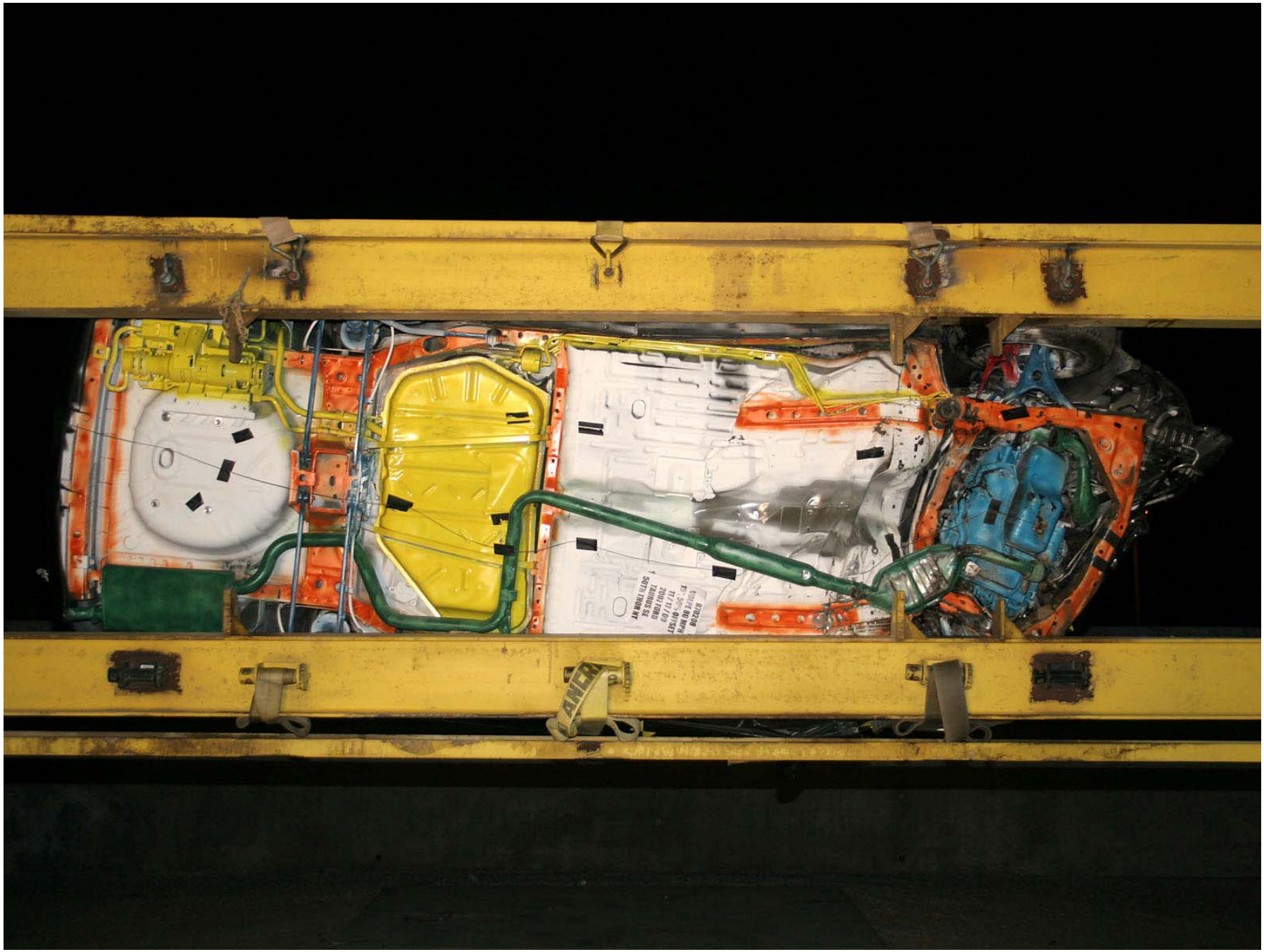

Figure A-326: Test Vehicle on Rollover Device (270°)

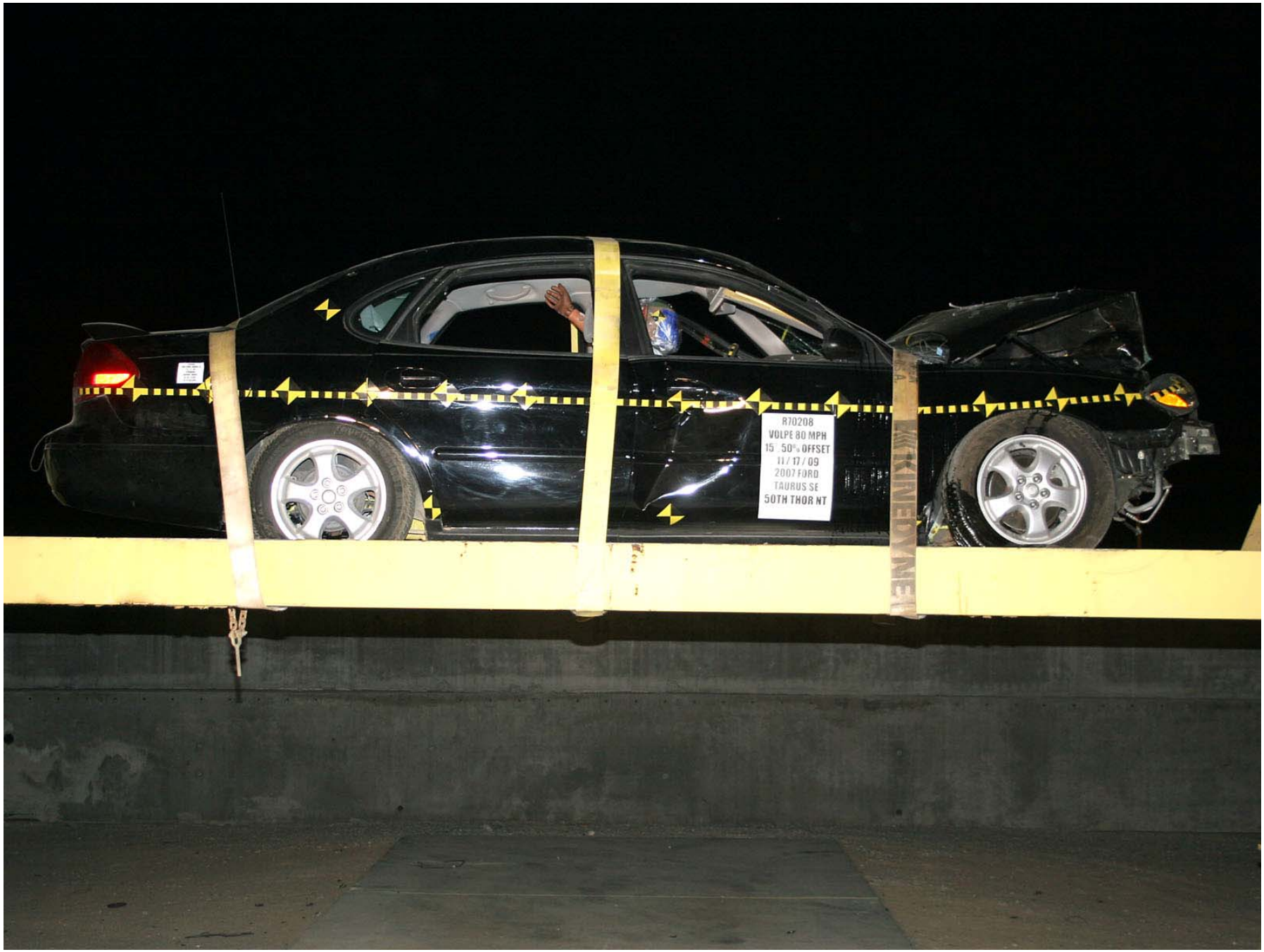

Figure A-327: Test Vehicle on Rollover Device (360°)

Figure A-328: Test Vehicle Impact

APPENDIX B
DATA PLOTS

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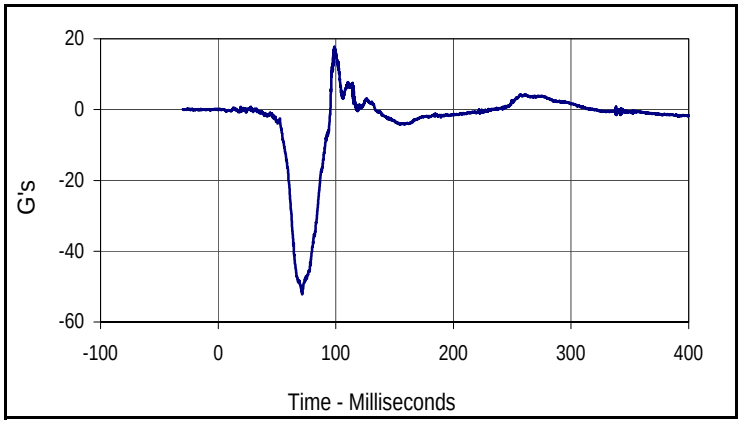
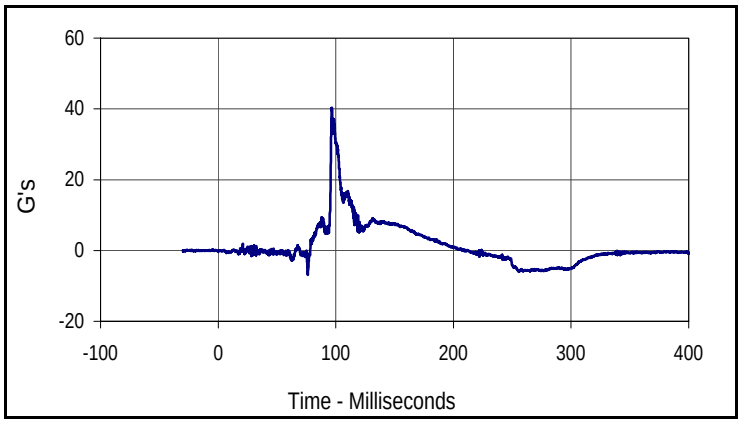
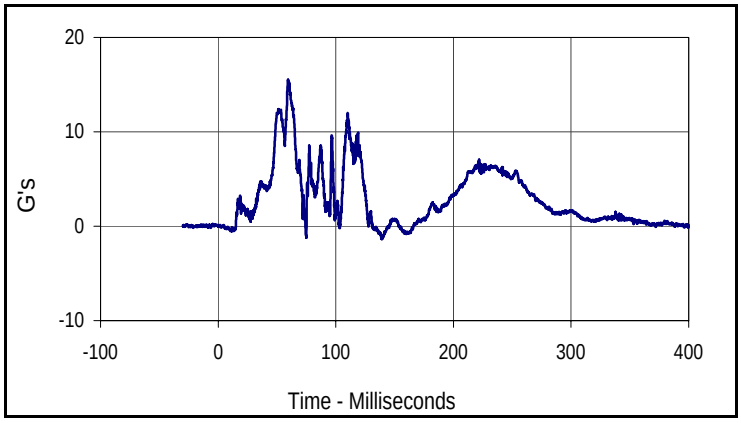
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



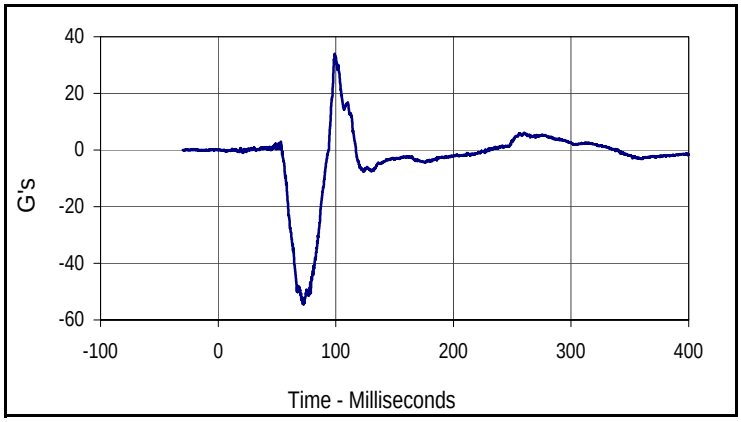
Curve Description			
Driver Head CG X			
CURNO	Type	SAE Class	Units
001	FIL	1000	G's
Max	Time	Min	Time
17.9	98.8	-52.1	71.5



Curve Description			
Driver Head CG Y			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
40.2	96.7	-6.9	76.2

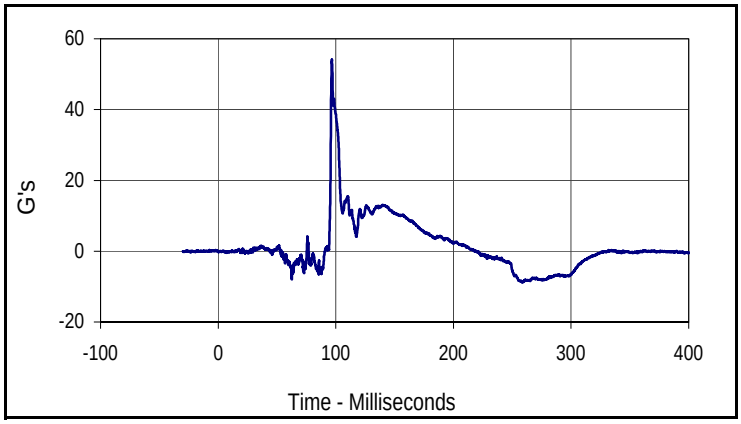


Curve Description			
Driver Head CG Z			
CURNO	Type	SAE Class	Units
003	FIL	1000	G's
Max	Time	Min	Time
15.5	59.4	-1.3	139.4

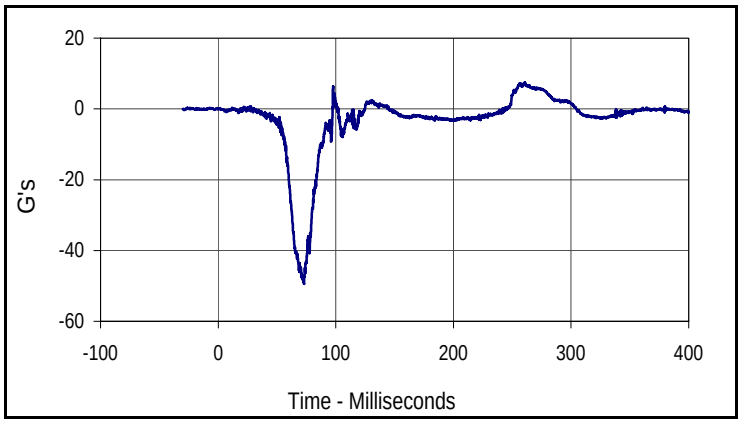


Curve Description			
Driver Top Head Array X			
CURNO	Type	SAE Class	Units
004	FIL	1000	G's
Max	Time	Min	Time
34.0	99.0	-54.4	72.8

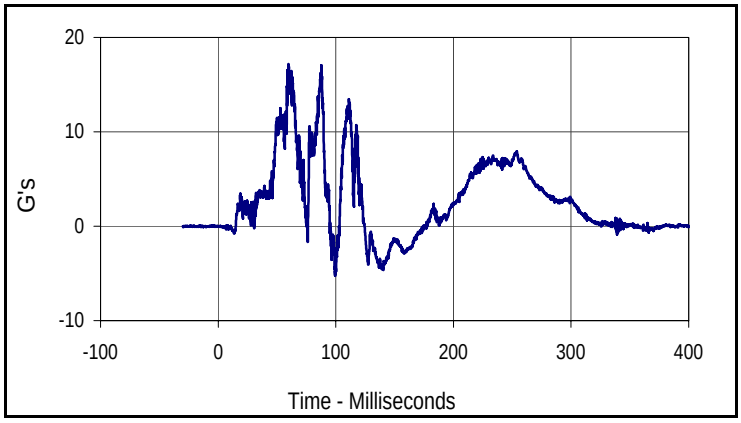
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



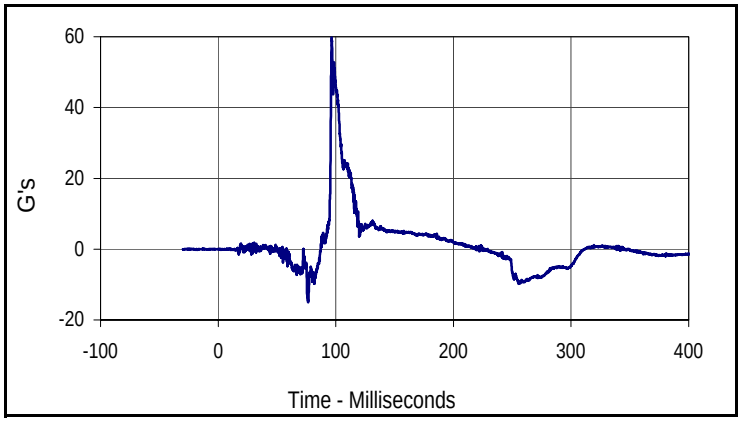
Curve Description			
Driver Top Head Array Y			
CURNO	Type	SAE Class	Units
005	FIL	1000	G's
Max	Time	Min	Time
54.1	96.7	-8.9	258.7



Curve Description			
Driver Left Side Head Array X			
CURNO	Type	SAE Class	Units
006	FIL	1000	G's
Max	Time	Min	Time
7.5	260.7	-49.5	72.9

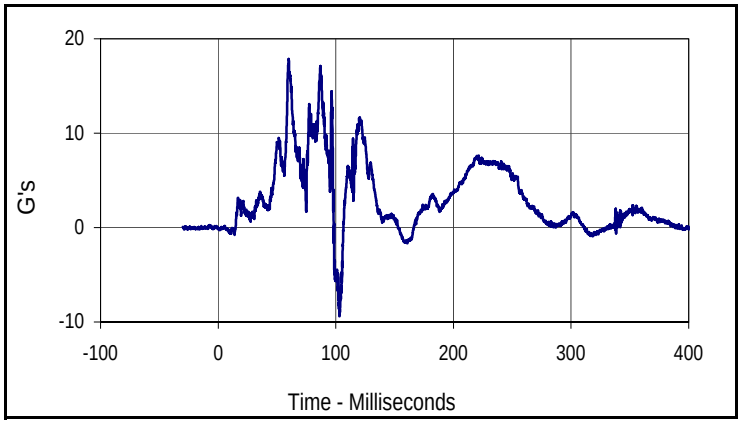


Curve Description			
Driver Left Side Head Array Z			
CURNO	Type	SAE Class	Units
007	FIL	1000	G's
Max	Time	Min	Time
17.2	59.8	-5.3	99.3

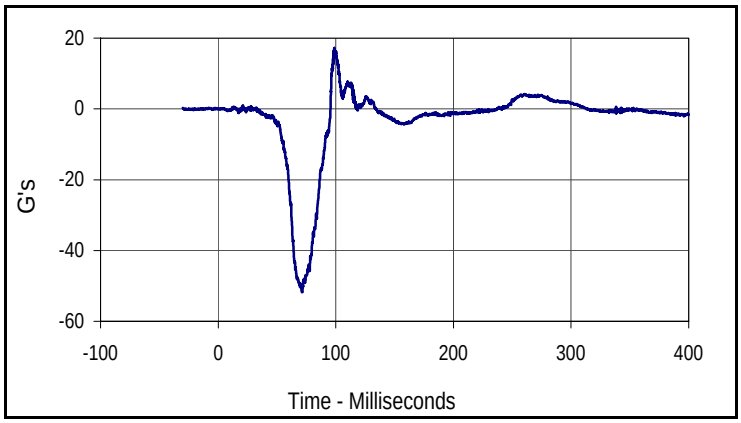


Curve Description			
Driver Rear Head Array Y			
CURNO	Type	SAE Class	Units
008	FIL	1000	G's
Max	Time	Min	Time
59.7	96.4	-15.1	76.5

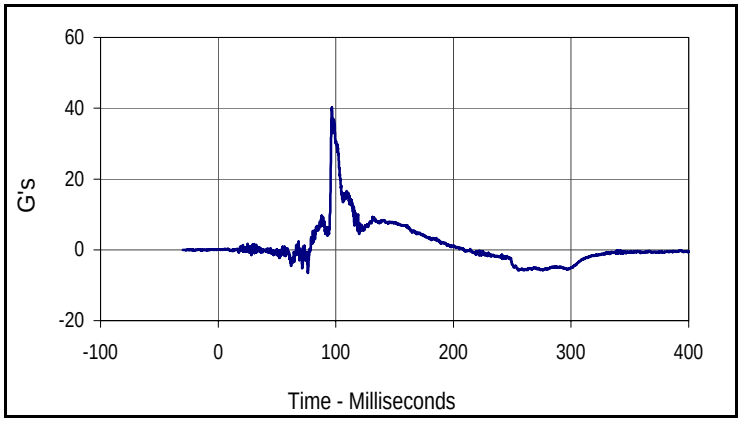
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



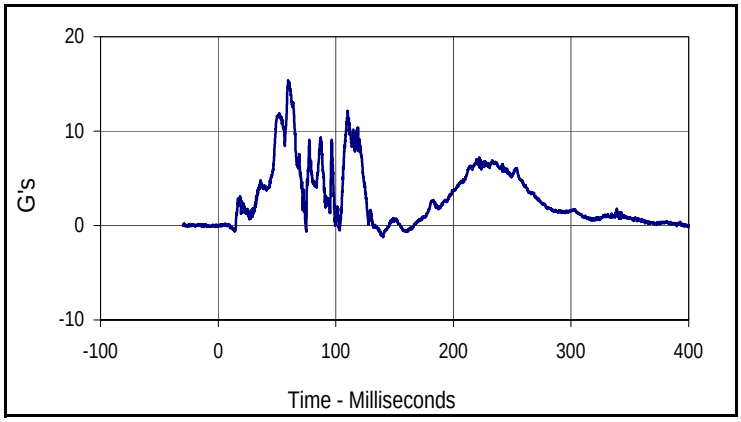
Curve Description			
Driver Rear Head Array Z			
CURNO	Type	SAE Class	Units
009	FIL	1000	G's
Max	Time	Min	Time
17.9	60.0	-9.4	103.1



Curve Description			
Driver Head CG X Redundant			
CURNO	Type	SAE Class	Units
010	FIL	1000	G's
Max	Time	Min	Time
17.2	98.8	-51.8	71.3

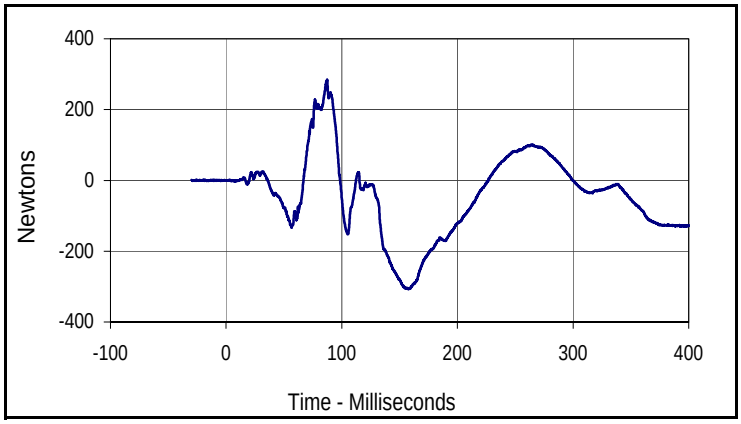


Curve Description			
Driver Head CG Y Redundant			
CURNO	Type	SAE Class	Units
011	FIL	1000	G's
Max	Time	Min	Time
40.2	96.7	-6.6	76.3

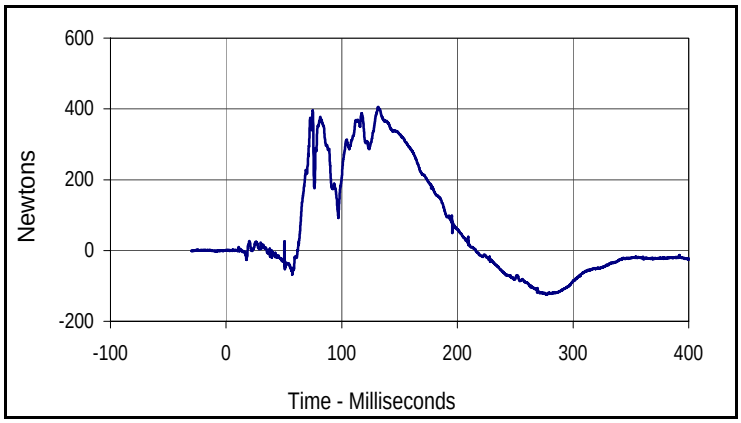


Curve Description			
Driver Head CG Z Redundant			
CURNO	Type	SAE Class	Units
012	FIL	1000	G's
Max	Time	Min	Time
15.3	59.5	-1.2	140.3

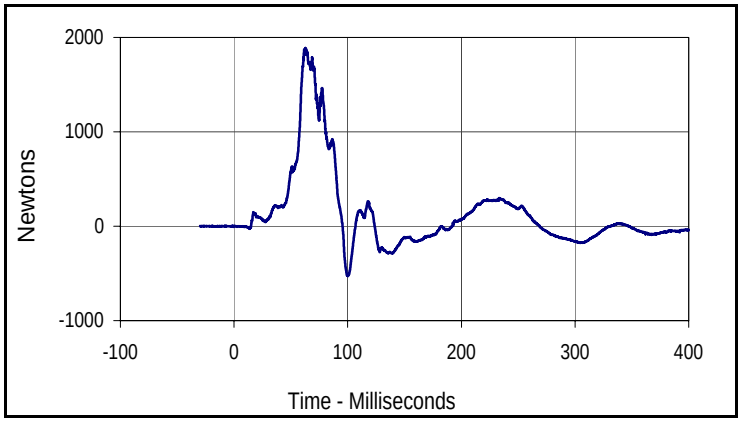
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



Curve Description			
Driver Upper Neck Force X			
CURNO	Type	SAE Class	Units
013	FIL	1000	Newtons
Max	Time	Min	Time
284.1	87.3	-307.5	157.7

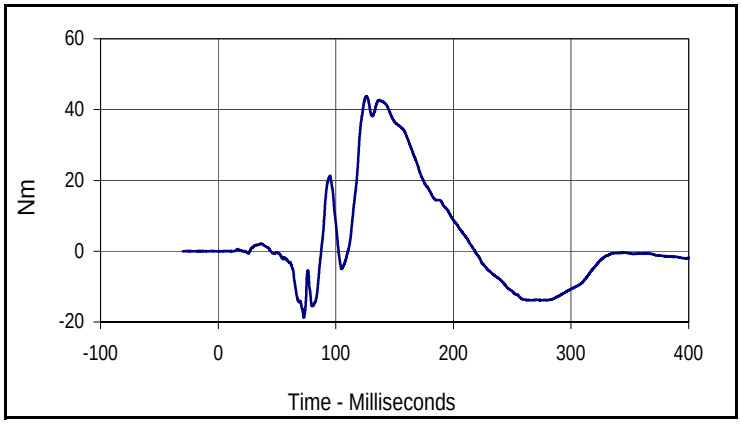


Curve Description			
Driver Upper Neck Force Y			
CURNO	Type	SAE Class	Units
014	FIL	1000	Newtons
Max	Time	Min	Time
406.0	131.5	-124.8	277.4

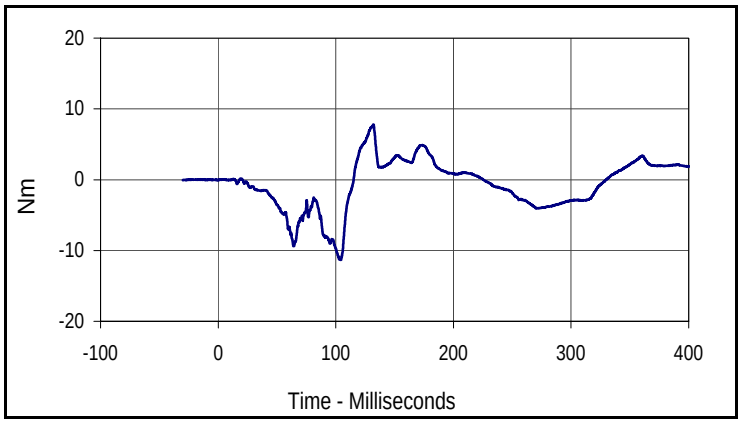


Curve Description			
Driver Upper Neck Force Z			
CURNO	Type	SAE Class	Units
015	FIL	1000	Newtons
Max	Time	Min	Time
1887.1	62.7	-527.3	100.3

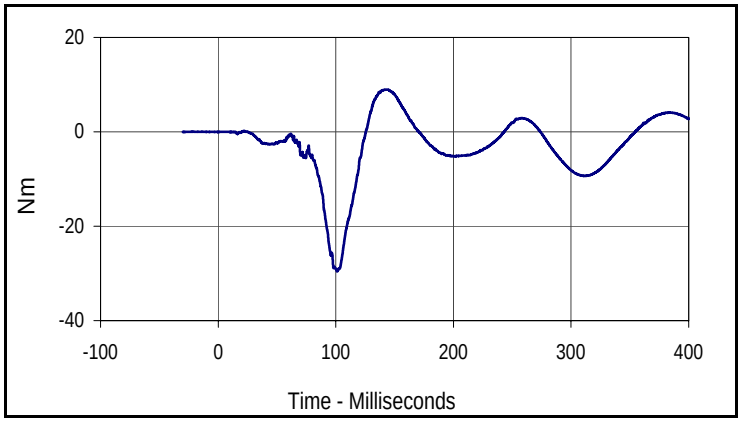
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



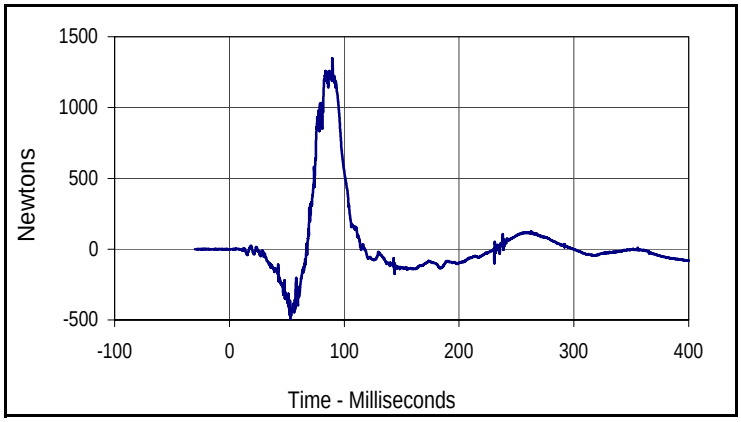
Curve Description			
Driver Upper Neck Moment X			
CURNO	Type	SAE Class	Units
016	FIL	600	Nm
Max	Time	Min	Time
43.8	125.9	-18.7	72.9



Curve Description			
Driver Upper Neck Moment Y			
CURNO	Type	SAE Class	Units
017	FIL	600	Nm
Max	Time	Min	Time
7.8	132.0	-11.3	104.3

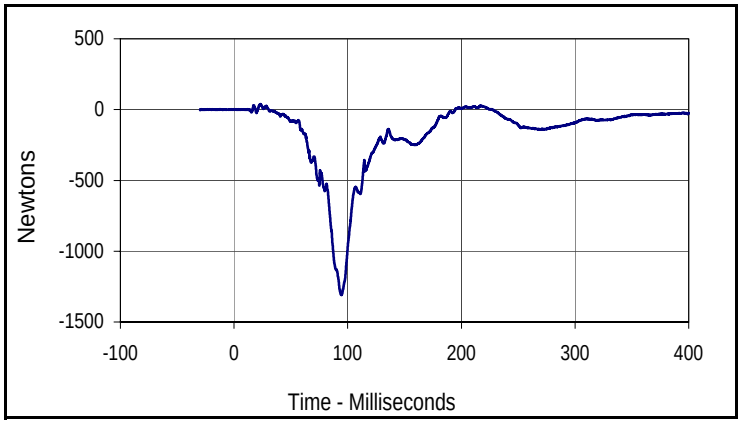


Curve Description			
Driver Upper Neck Moment Z			
CURNO	Type	SAE Class	Units
018	FIL	600	Nm
Max	Time	Min	Time
9.0	142.6	-29.5	101.2

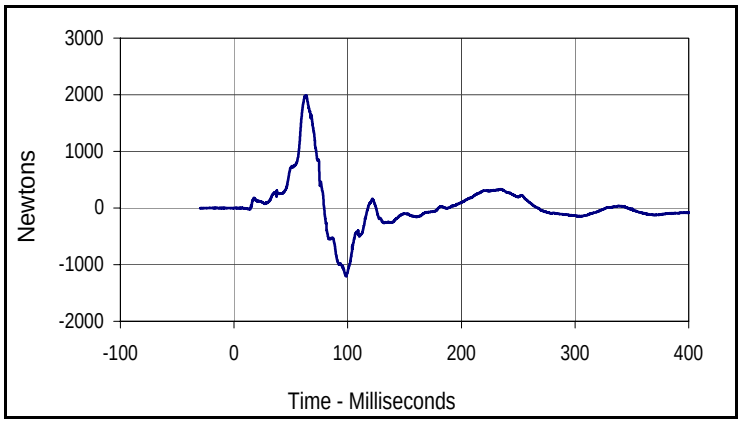


Curve Description			
Driver Lower Neck Force X			
CURNO	Type	SAE Class	Units
019	FIL	1000	Newtons
Max	Time	Min	Time
1346.0	89.5	-494.9	53.0

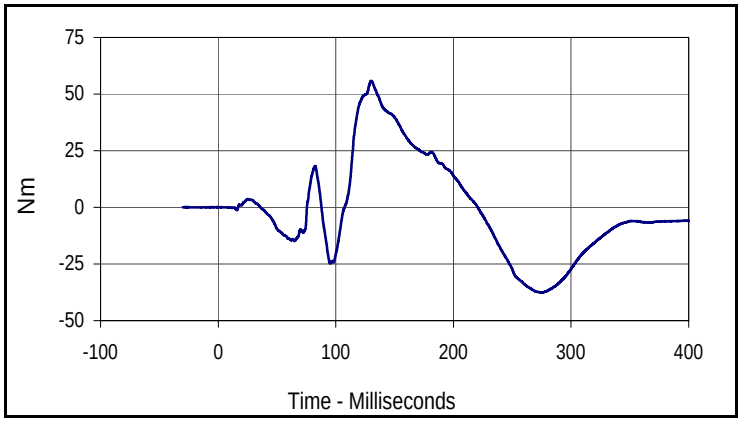
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



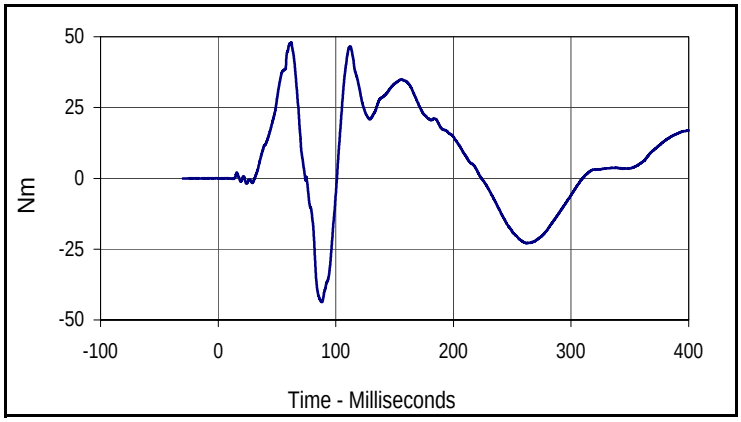
Curve Description			
Driver Lower Neck Force Y			
CURNO	Type	SAE Class	Units
020	FIL	1000	Newtons
Max	Time	Min	Time
38.4	23.1	-1309.6	94.6



Curve Description			
Driver Lower Neck Force Z			
CURNO	Type	SAE Class	Units
021	FIL	1000	Newtons
Max	Time	Min	Time
1990.7	63.6	-1203.1	98.8

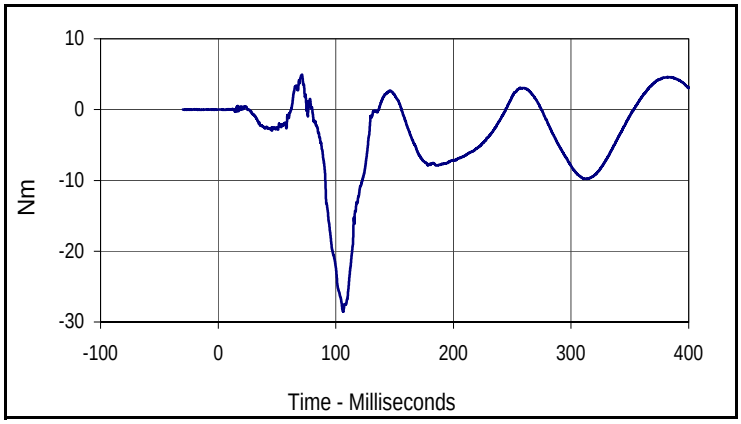


Curve Description			
Driver Lower Neck Moment X			
CURNO	Type	SAE Class	Units
022	FIL	600	Nm
Max	Time	Min	Time
55.8	130.1	-37.7	275.1

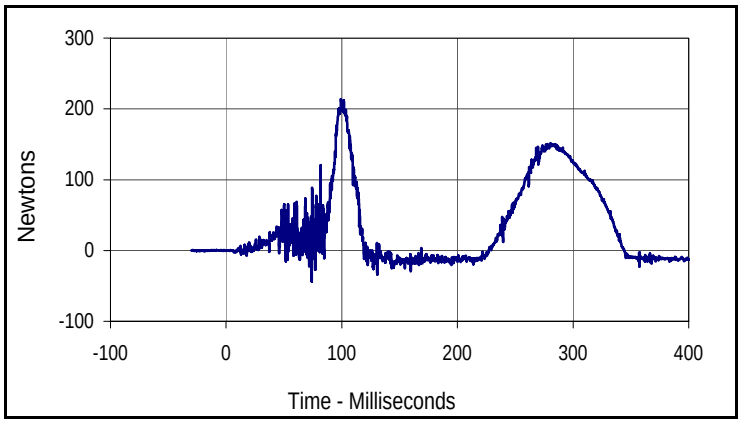


Curve Description			
Driver Lower Neck Moment Y			
CURNO	Type	SAE Class	Units
023	FIL	600	Nm
Max	Time	Min	Time
48.0	62.2	-43.7	88.2

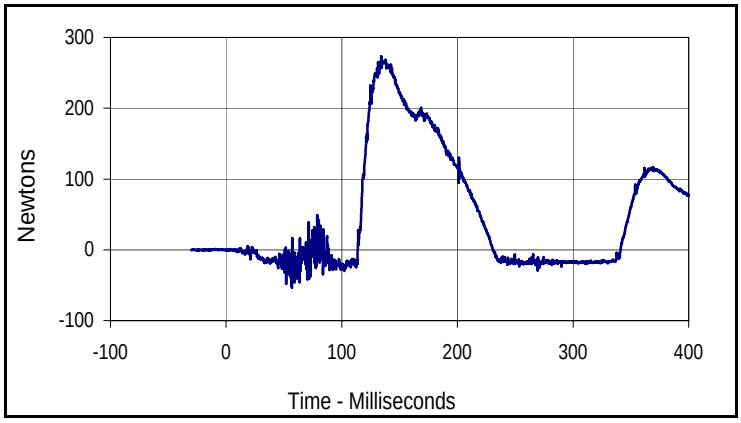
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



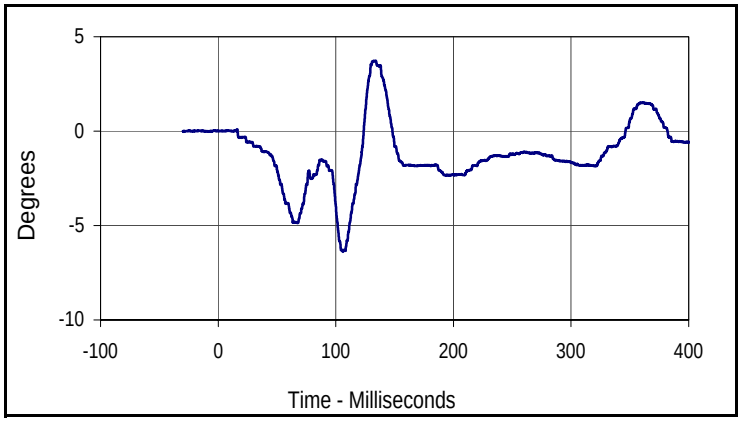
Curve Description			
Driver Lower Neck Moment Z			
CURNO	Type	SAE Class	Units
024	FIL	600	Nm
Max	Time	Min	Time
5.0	71.3	-28.5	106.2



Curve Description			
Driver Front Neck Spring Force			
CURNO	Type	SAE Class	Units
025	FIL	1000	Newtons
Max	Time	Min	Time
213.5	99.3	-43.0	74.1

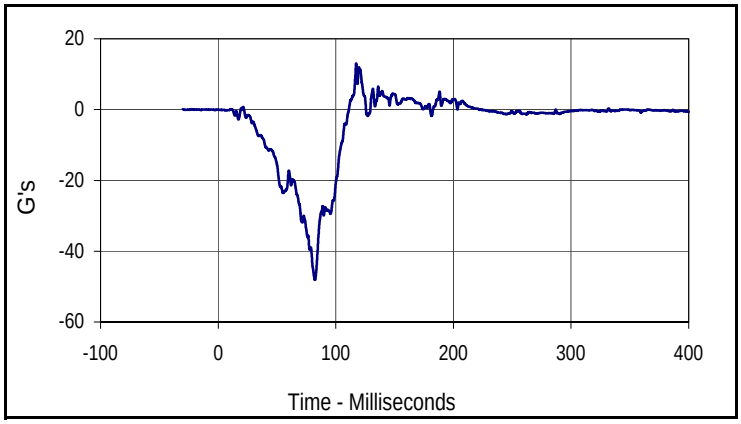


Curve Description			
Driver Rear Neck Spring Force			
CURNO	Type	SAE Class	Units
026	FIL	1000	Newtons
Max	Time	Min	Time
273.3	134.2	-53.4	56.8

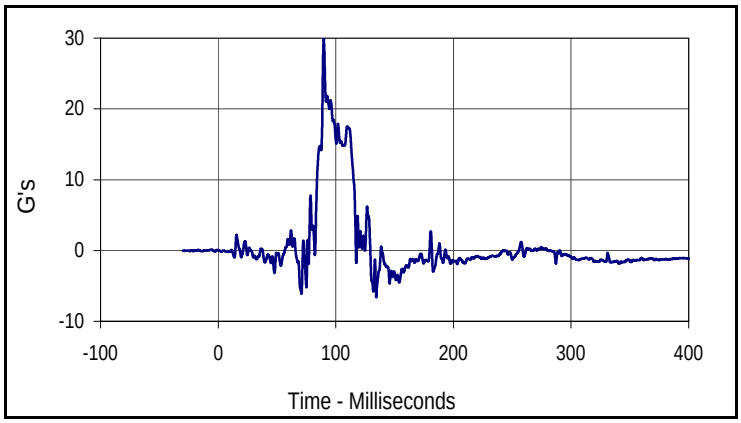


Curve Description			
Driver Occipital Condyle Rotation			
CURNO	Type	SAE Class	Units
027	FIL	600	Degrees
Max	Time	Min	Time
3.7	132.2	-6.4	106.0

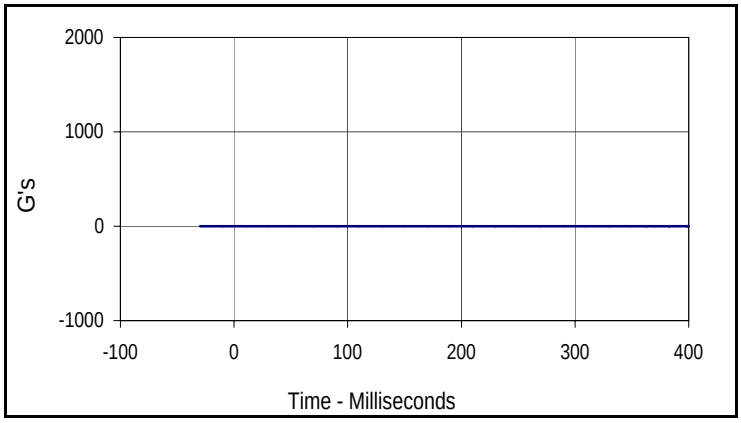
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



Curve Description			
Driver Upper Spine T1 X			
CURNO	Type	SAE Class	Units
028	FIL	180	G's
Max	Time	Min	Time
13.1	117.3	-48.1	82.3



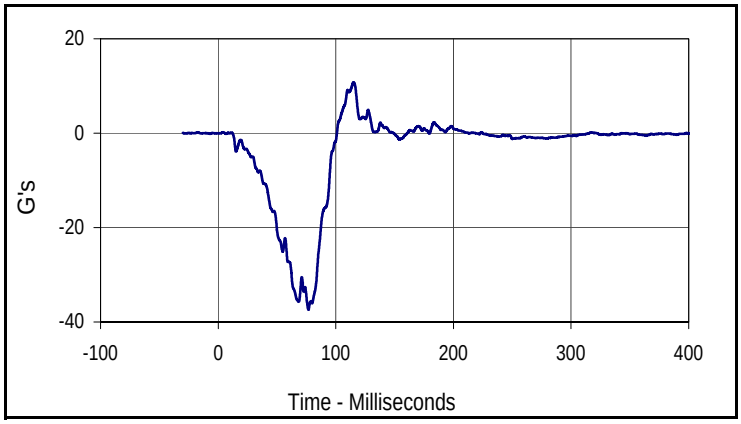
Curve Description			
Driver Upper Spine T1 Y			
CURNO	Type	SAE Class	Units
029	FIL	180	G's
Max	Time	Min	Time
29.9	89.8	-6.6	134.4



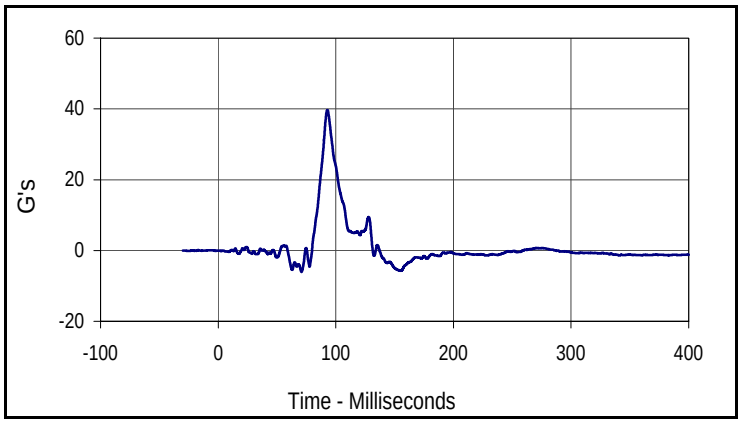
Curve Description			
Driver Upper Spine T1 Z			
CURNO	Type	SAE Class	Units
030	FIL	180	G's
Max	Time	Min	Time
0.0	0.0	0.0	0.0

* Channel failed, no data

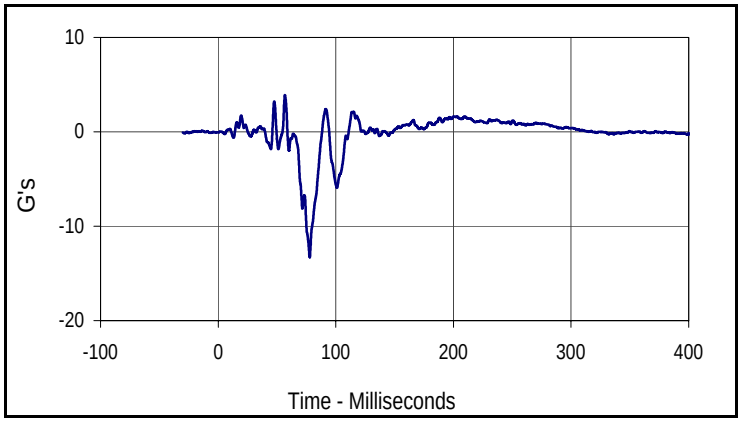
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



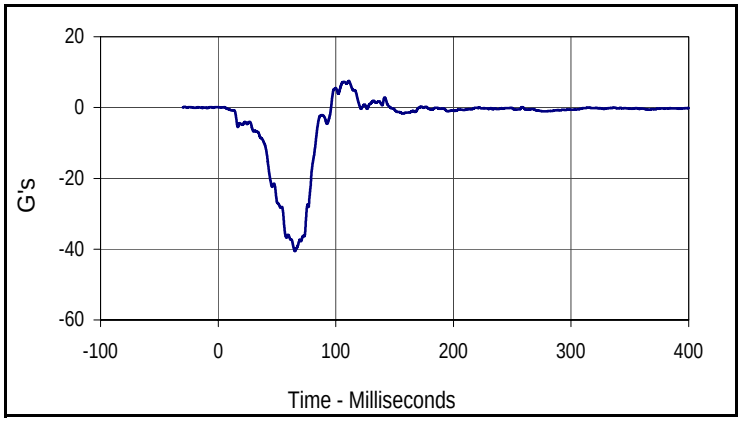
Curve Description			
Driver Thorax X			
CURNO	Type	SAE Class	Units
031	FIL	180	G's
Max	Time	Min	Time
10.8	115.1	-37.3	76.8



Curve Description			
Driver Thorax Y			
CURNO	Type	SAE Class	Units
032	FIL	180	G's
Max	Time	Min	Time
39.7	92.9	-6.0	70.8

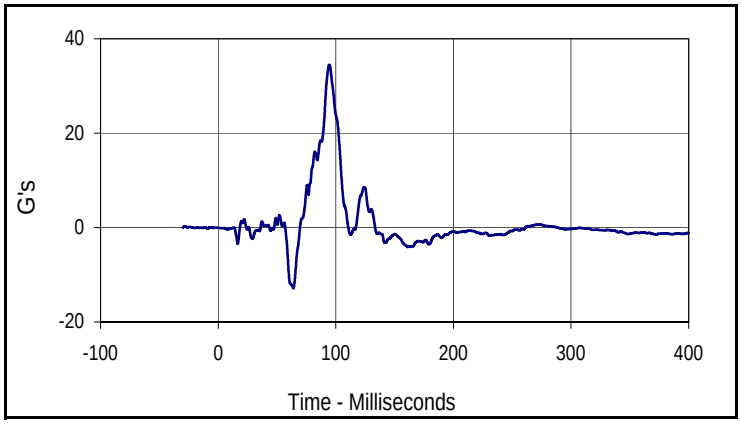


Curve Description			
Driver Thorax Z			
CURNO	Type	SAE Class	Units
033	FIL	180	G's
Max	Time	Min	Time
3.9	56.8	-13.3	77.9

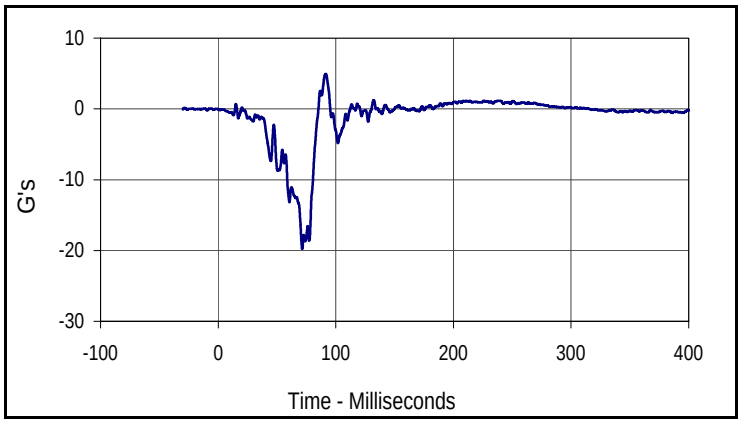


Curve Description			
Driver Lower Spine T12 X			
CURNO	Type	SAE Class	Units
034	FIL	180	G's
Max	Time	Min	Time
7.6	111.0	-40.6	65.2

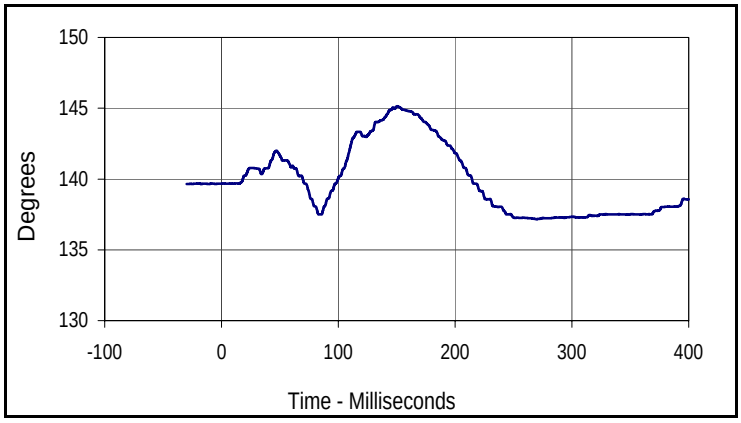
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



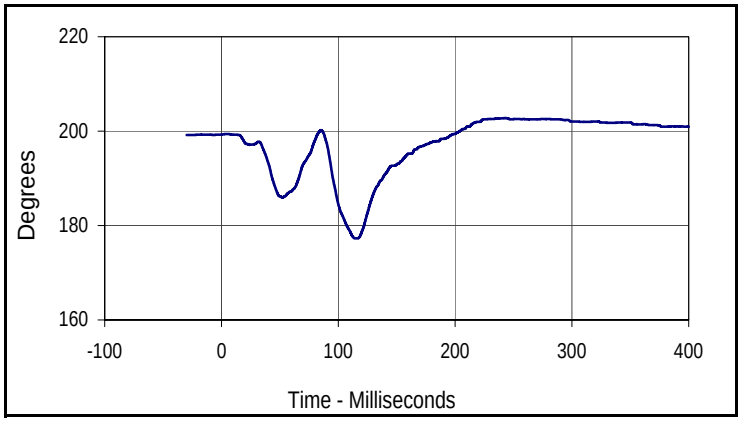
Curve Description			
Driver Lower Spine T12 Y			
CURNO	Type	SAE Class	Units
035	FIL	180	G's
Max	Time	Min	Time
34.5	94.4	-12.9	64.0



Curve Description			
Driver Lower Spine T12 Z			
CURNO	Type	SAE Class	Units
036	FIL	180	G's
Max	Time	Min	Time
4.9	91.5	-19.8	71.4

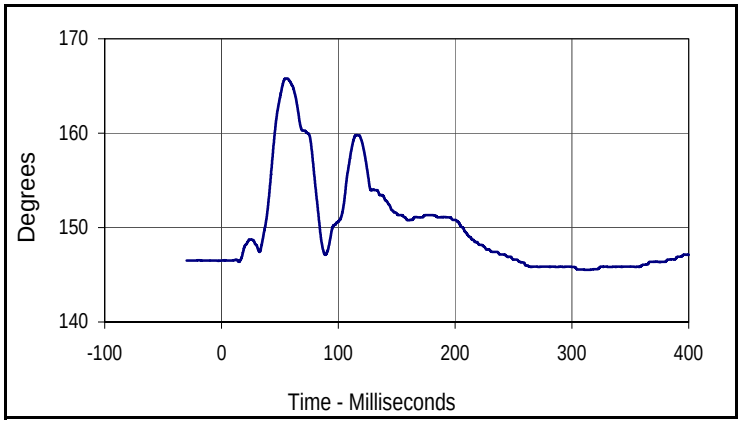


Curve Description			
Driver Upper Left CRUX Base Rotation			
CURNO	Type	SAE Class	Units
037	FIL	180	Degrees
Max	Time	Min	Time
145.1	150.4	137.2	269.6

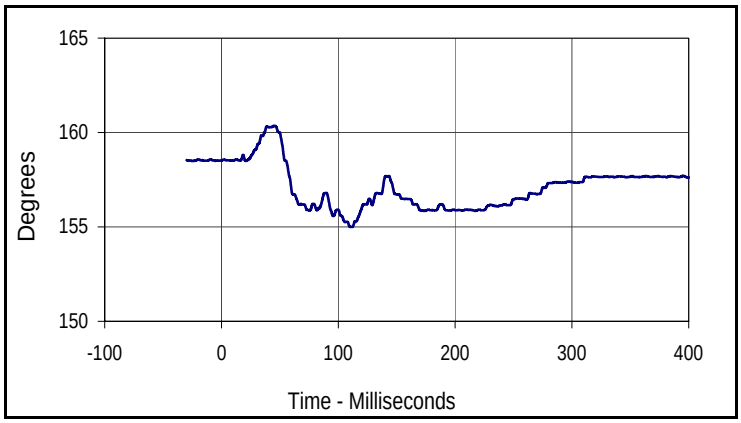


Curve Description			
Driver Upper Left CRUX Middle Rotation			
CURNO	Type	SAE Class	Units
038	FIL	180	Degrees
Max	Time	Min	Time
202.8	242.7	177.3	114.4

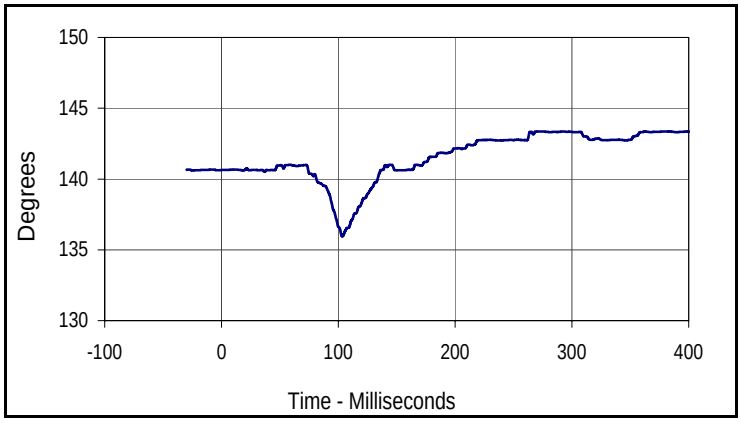
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



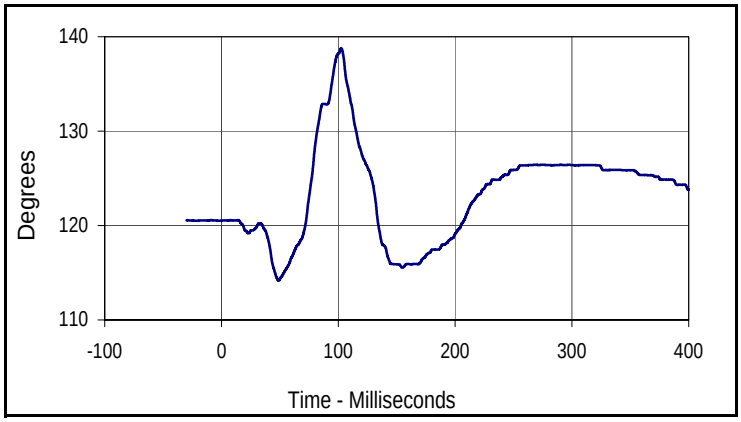
Curve Description			
Driver Upper Left CRUX Elbow Rotation			
CURNO	Type	SAE Class	Units
039	FIL	180	Degrees
Max	Time	Min	Time
165.8	56.5	145.5	314.4



Curve Description			
Driver Lower Left CRUX Base Rotation			
CURNO	Type	SAE Class	Units
040	FIL	180	Degrees
Max	Time	Min	Time
160.4	45.0	155.0	110.2

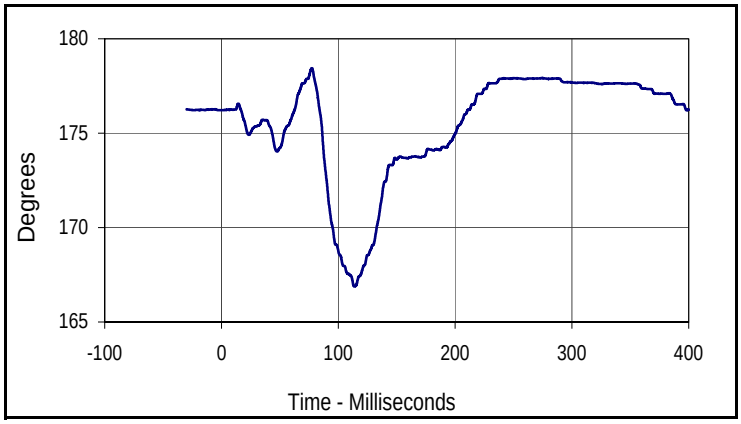


Curve Description			
Driver Lower Left CRUX Middle Rotation			
CURNO	Type	SAE Class	Units
041	FIL	180	Degrees
Max	Time	Min	Time
143.4	362.3	136.0	103.5

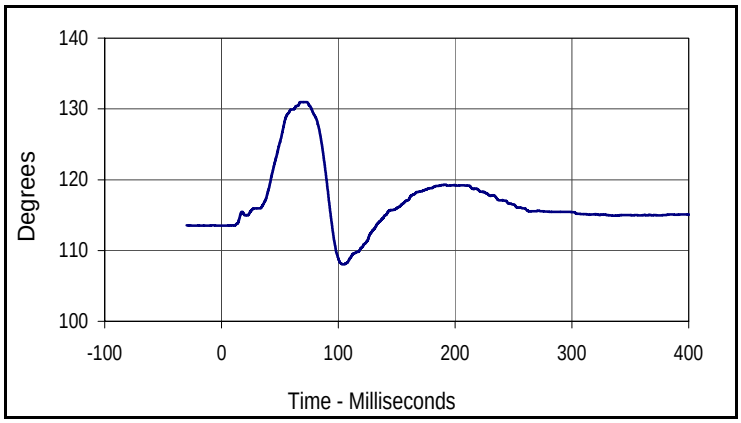


Curve Description			
Driver Lower Left CRUX Elbow Rotation			
CURNO	Type	SAE Class	Units
042	FIL	180	Degrees
Max	Time	Min	Time
138.8	102.5	114.2	48.9

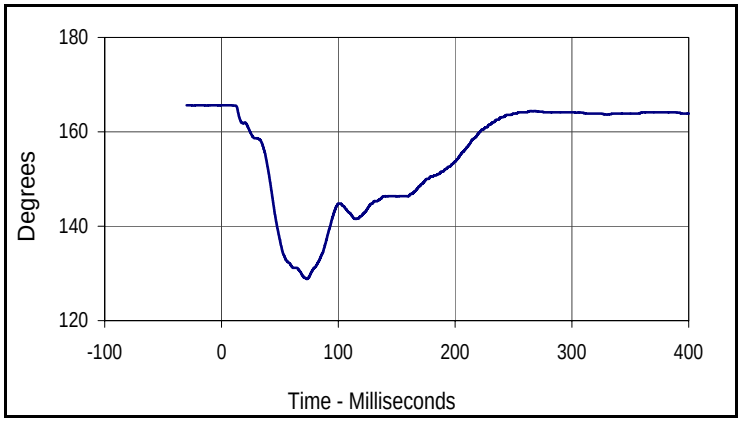
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



Curve Description			
Driver Upper Right CRUX Base Rotation			
CURNO	Type	SAE Class	Units
043	FIL	180	Degrees
Max	Time	Min	Time
178.4	77.4	166.9	113.8

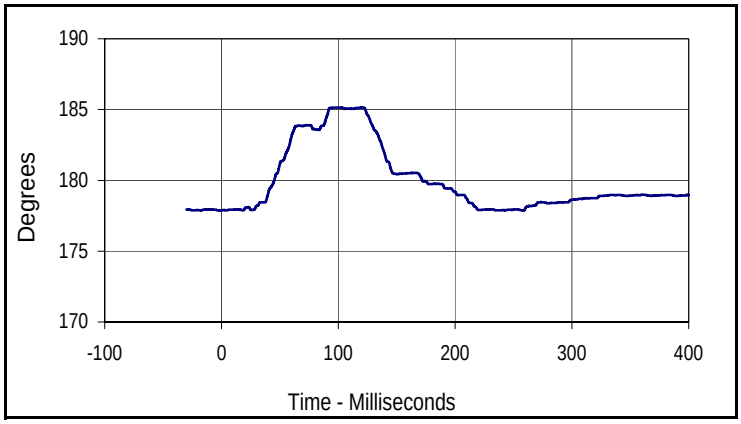


Curve Description			
Driver Upper Right CRUX Middle Rotation			
CURNO	Type	SAE Class	Units
044	FIL	180	Degrees
Max	Time	Min	Time
131.0	73.0	108.0	104.8

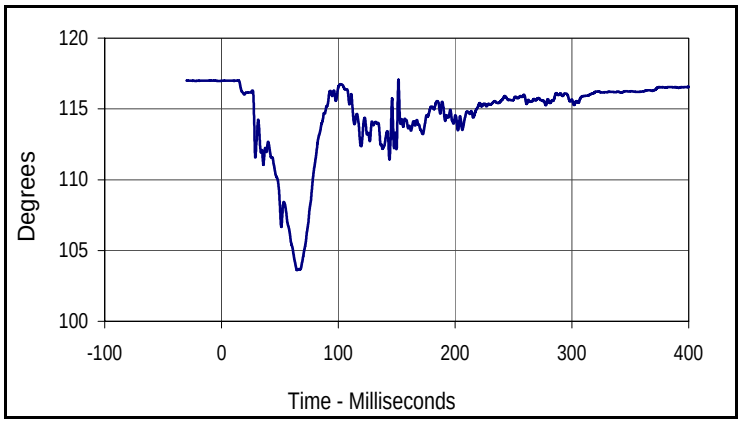


Curve Description			
Driver Upper Right CRUX Elbow Rotation			
CURNO	Type	SAE Class	Units
045	FIL	180	Degrees
Max	Time	Min	Time
165.6	4.3	128.8	73.2

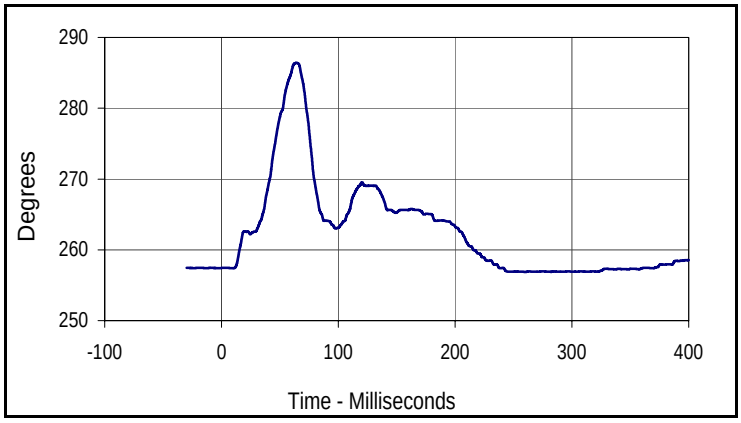
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



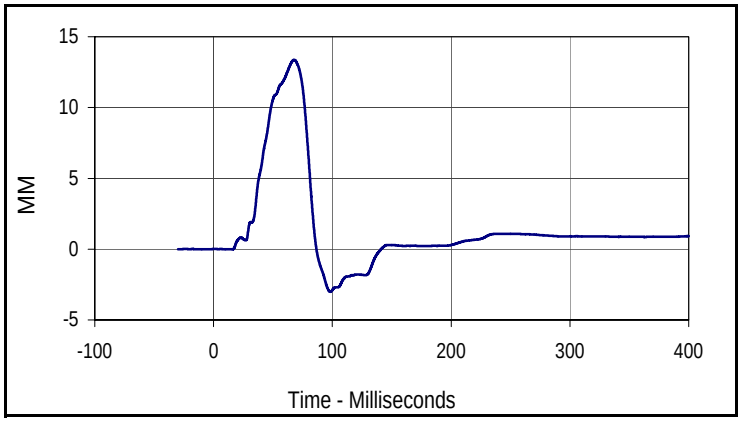
Curve Description			
Driver Lower Right CRUX Base Rotation			
CURNO	Type	SAE Class	Units
046	FIL	180	Degrees
Max	Time	Min	Time
185.2	120.0	177.9	258.7



Curve Description			
Driver Lower Right CRUX Middle Rotation			
CURNO	Type	SAE Class	Units
047	FIL	180	Degrees
Max	Time	Min	Time
117.1	151.5	103.6	64.6

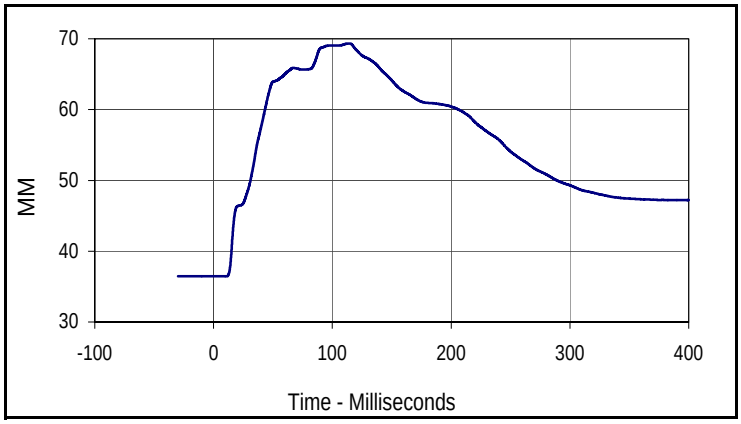


Curve Description			
Driver Lower Right CRUX Elbow Rotation			
CURNO	Type	SAE Class	Units
048	FIL	180	Degrees
Max	Time	Min	Time
286.4	64.1	256.9	260.1

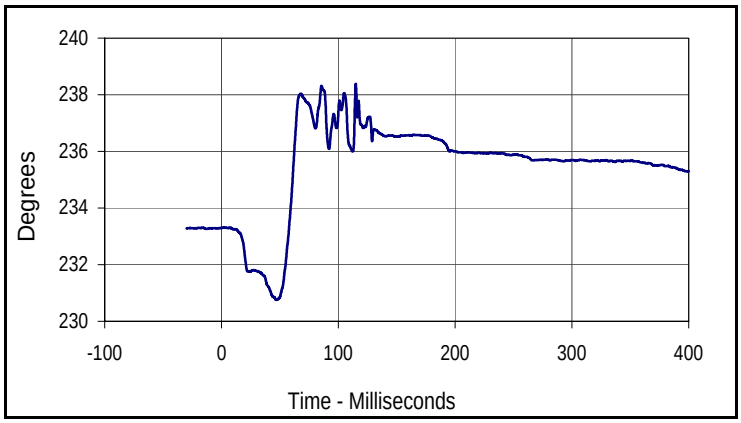


Curve Description			
Driver Upper Abdomen Deflection			
CURNO	Type	SAE Class	Units
049	FIL	180	MM
Max	Time	Min	Time
13.4	67.8	-3.0	98.2

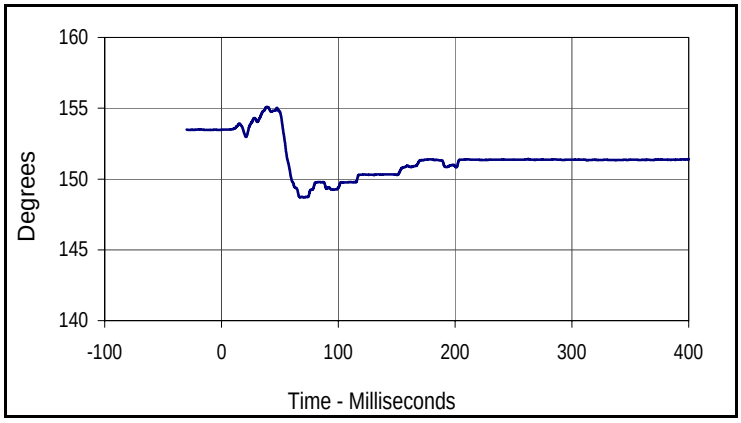
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



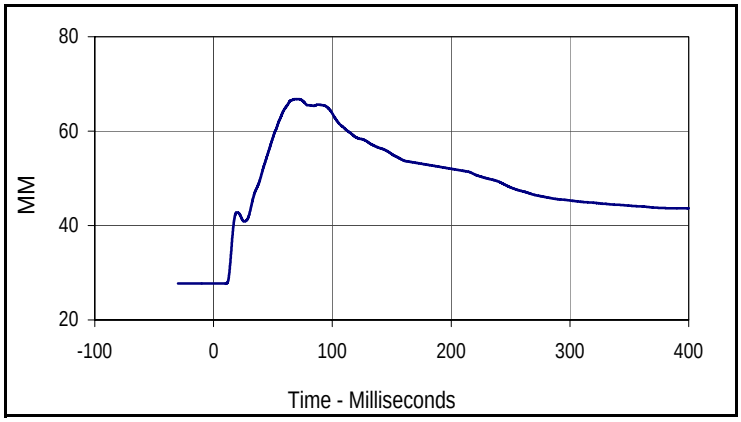
Curve Description			
Driver Left DGSP X Deflection			
CURNO	Type	SAE Class	Units
050	FIL	180	MM
Max	Time	Min	Time
69.3	114.6	36.5	11.0



Curve Description			
Driver Left DGSP Y Rotation			
CURNO	Type	SAE Class	Units
051	FIL	180	Degrees
Max	Time	Min	Time
238.4	115.0	230.8	47.0

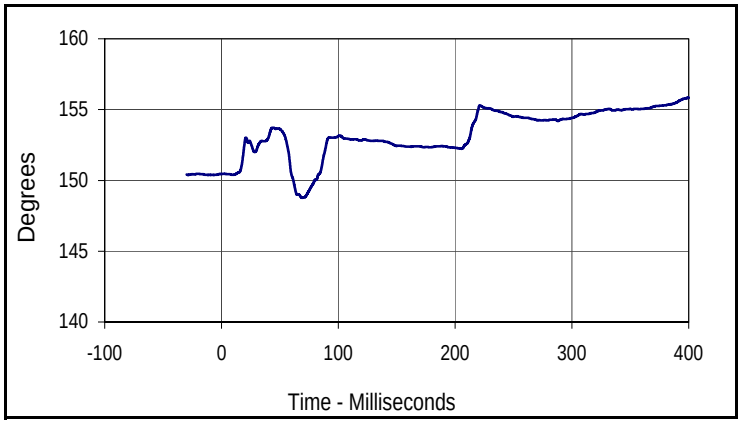


Curve Description			
Driver Left DGSP Z Rotation			
CURNO	Type	SAE Class	Units
052	FIL	180	Degrees
Max	Time	Min	Time
155.1	38.8	148.7	70.5

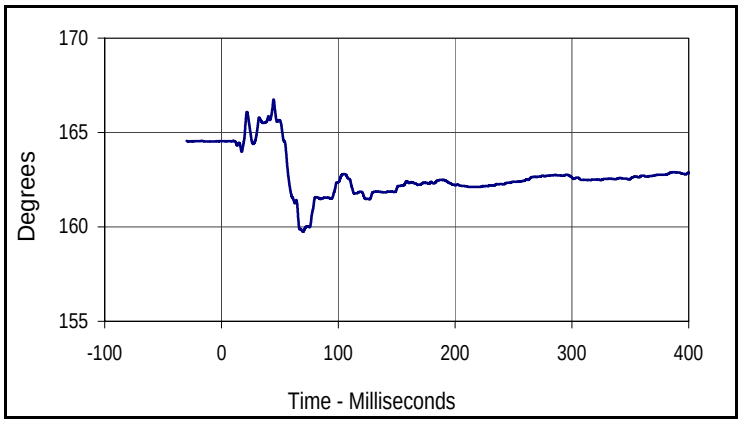


Curve Description			
Driver Right DGSP X Deflection			
CURNO	Type	SAE Class	Units
053	FIL	180	MM
Max	Time	Min	Time
66.8	68.6	27.7	10.3

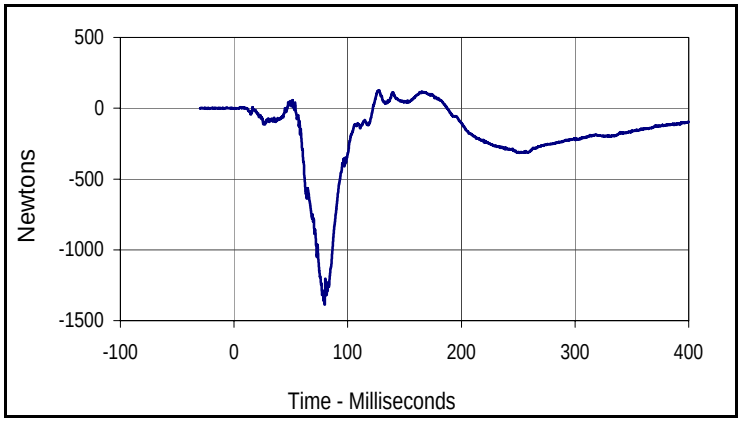
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



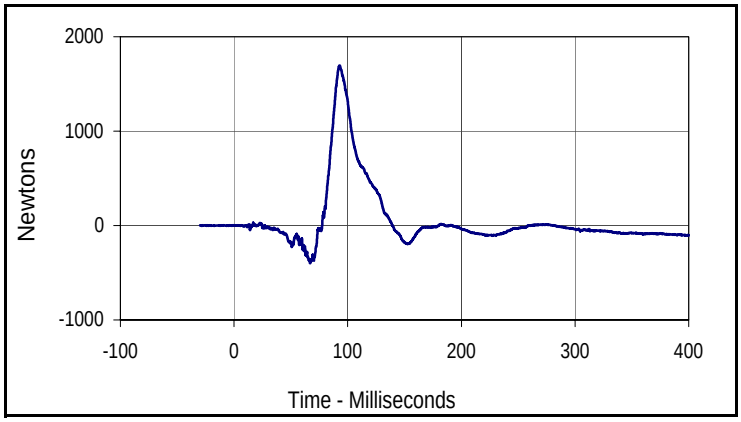
Curve Description			
Driver Right DGSP Y Rotation			
CURNO	Type	SAE Class	Units
054	FIL	180	Degrees
Max	Time	Min	Time
155.8	399.9	148.8	69.1



Curve Description			
Driver Right DGSP Z Rotation			
CURNO	Type	SAE Class	Units
055	FIL	180	Degrees
Max	Time	Min	Time
166.7	44.6	159.7	69.8

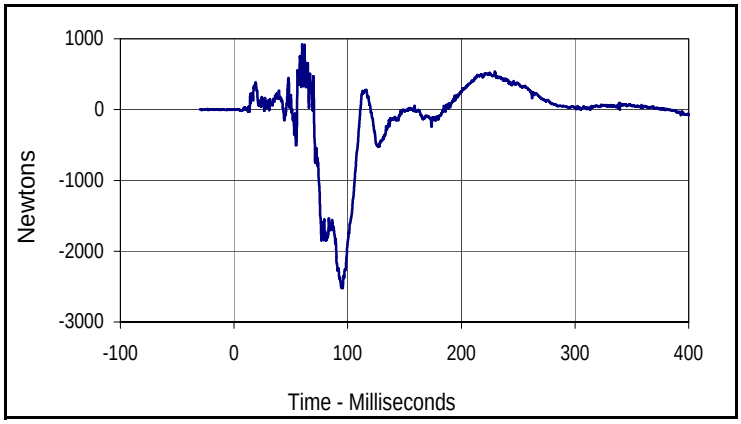


Curve Description			
Driver Thoracic Spine Force X			
CURNO	Type	SAE Class	Units
056	FIL	600	Newtons
Max	Time	Min	Time
127.3	127.7	-1386.3	79.8

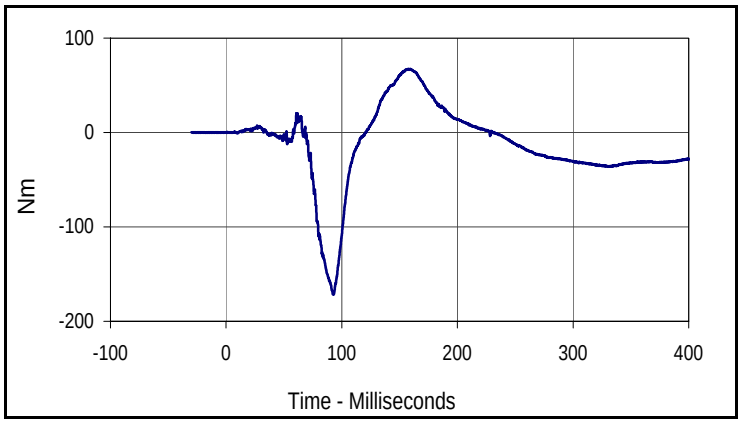


Curve Description			
Driver Thoracic Spine Force Y			
CURNO	Type	SAE Class	Units
057	FIL	600	Newtons
Max	Time	Min	Time
1696.0	92.9	-399.0	67.0

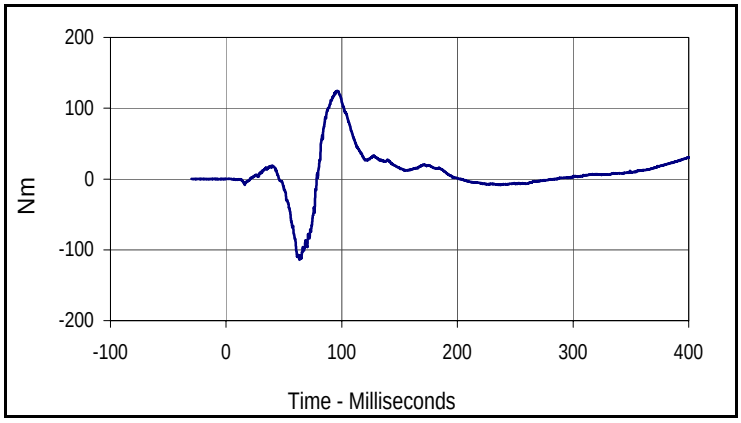
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



Curve Description			
Driver Upper Thoracic Spine Force Z			
CURNO	Type	SAE Class	Units
058	FIL	600	Newtons
Max	Time	Min	Time
917.3	60.0	-2523.1	94.5

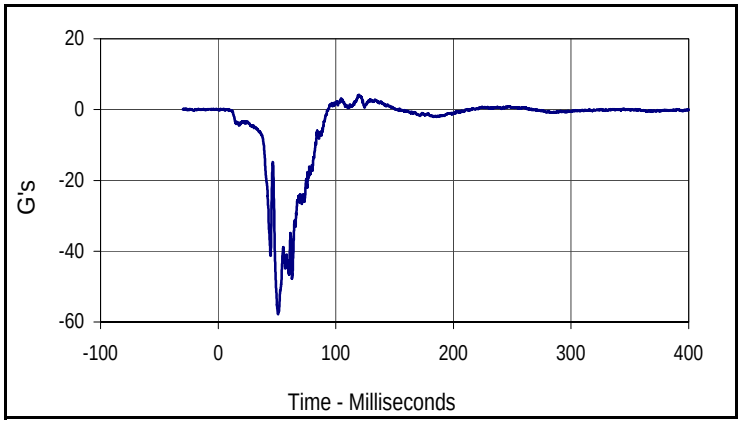


Curve Description			
Driver Upper Thoracic Spine Moment X			
CURNO	Type	SAE Class	Units
059	FIL	600	Nm
Max	Time	Min	Time
67.4	157.5	-171.6	92.4

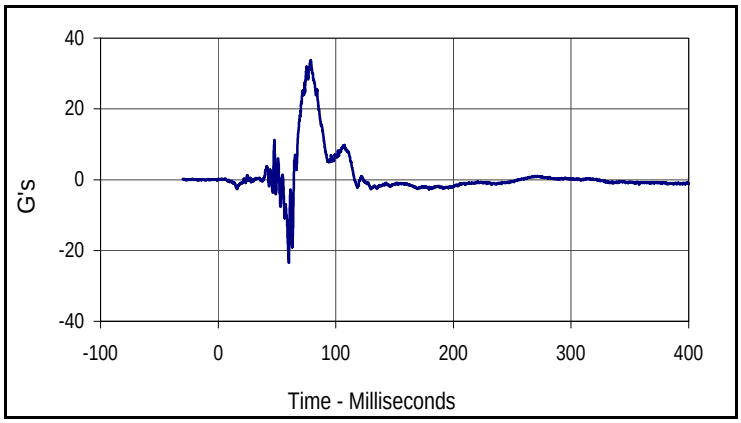


Curve Description			
Driver Upper Thoracic Spine Moment Y			
CURNO	Type	SAE Class	Units
060	FIL	600	Nm
Max	Time	Min	Time
124.6	96.0	-114.2	63.4

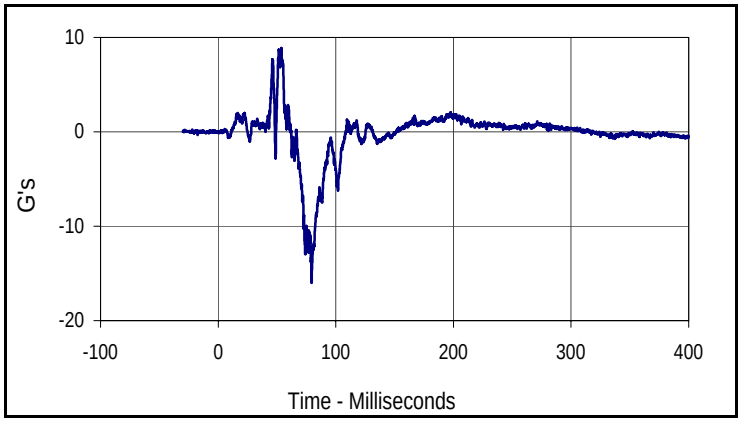
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



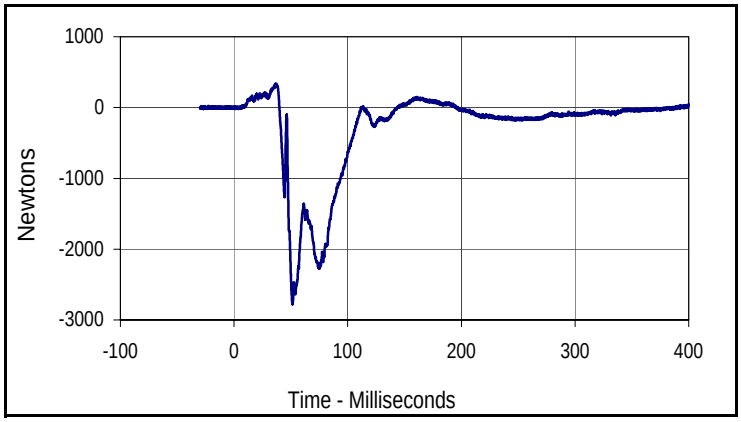
Curve Description			
Driver Pelvis X			
CURNO	Type	SAE Class	Units
061	FIL	1000	G's
Max	Time	Min	Time
4.2	119.7	-57.8	50.9



Curve Description			
Driver Pelvis Y			
CURNO	Type	SAE Class	Units
062	FIL	1000	G's
Max	Time	Min	Time
33.7	78.7	-23.5	60.1

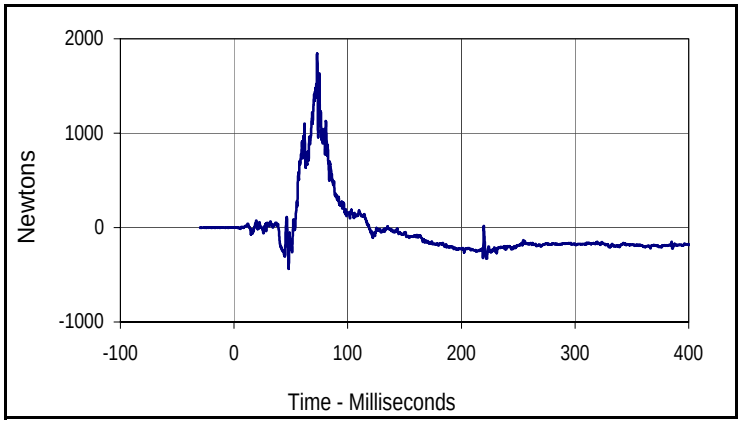


Curve Description			
Driver Pelvis Z			
CURNO	Type	SAE Class	Units
063	FIL	1000	G's
Max	Time	Min	Time
8.9	53.8	-16.0	79.5

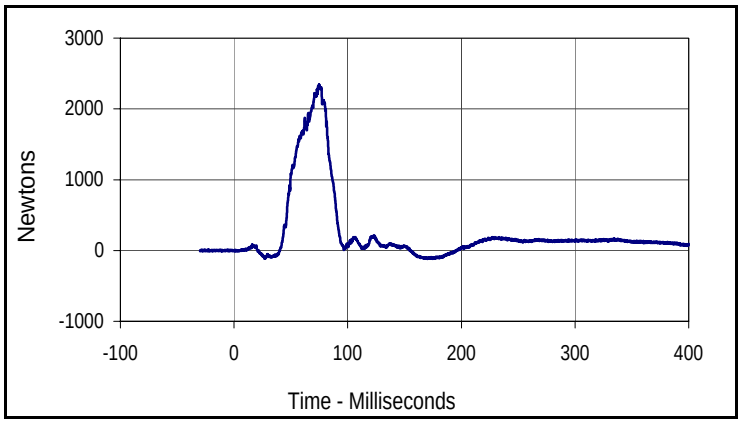


Curve Description			
Driver Left Acetabulum Force X			
CURNO	Type	SAE Class	Units
064	FIL	600	Newtons
Max	Time	Min	Time
335.5	37.2	-2778.0	51.5

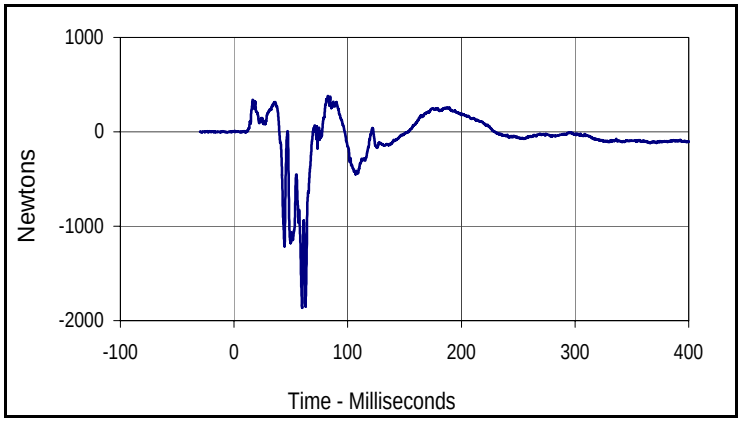
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



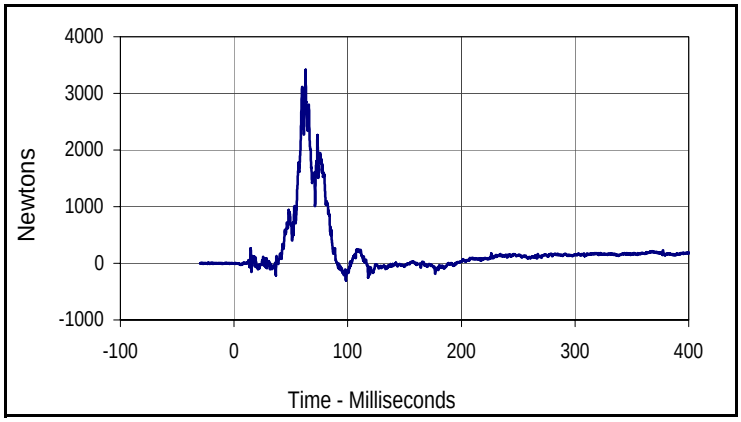
Curve Description			
Driver Left Acetabulum Force Y			
CURNO	Type	SAE Class	Units
065	FIL	600	Newtons
Max	Time	Min	Time
1845.0	73.1	-435.8	48.1



Curve Description			
Driver Left Acetabulum Force Z			
CURNO	Type	SAE Class	Units
066	FIL	600	Newtons
Max	Time	Min	Time
2342.9	74.9	-118.1	170.1

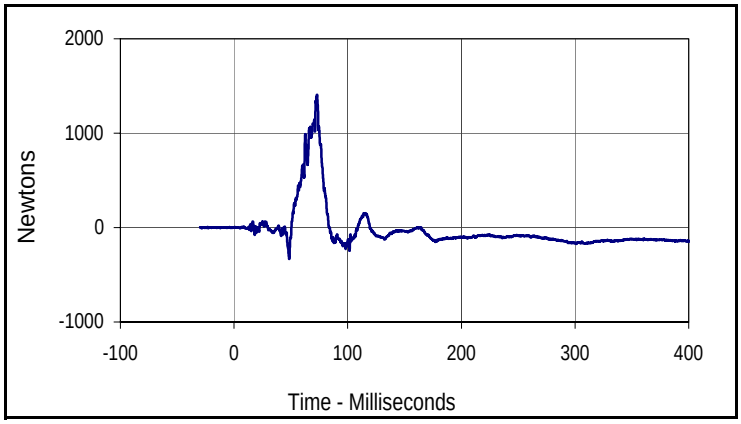


Curve Description			
Driver Right Acetabulum Force X			
CURNO	Type	SAE Class	Units
067	FIL	600	Newtons
Max	Time	Min	Time
379.5	82.7	-1863.4	59.9

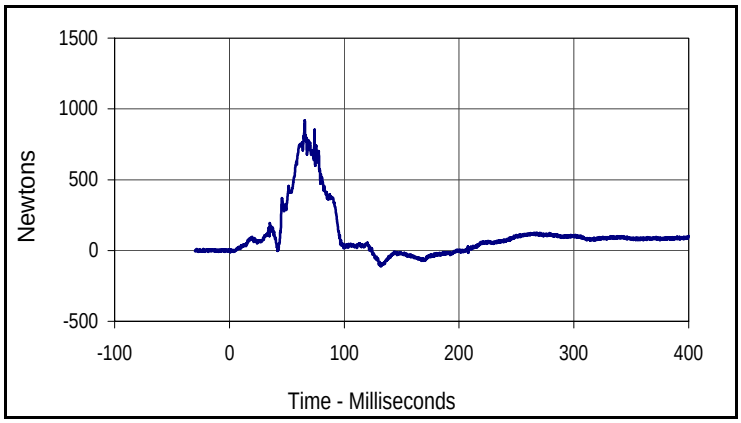


Curve Description			
Driver Right Acetabulum Force Y			
CURNO	Type	SAE Class	Units
068	FIL	600	Newtons
Max	Time	Min	Time
3418.8	62.9	-303.0	98.5

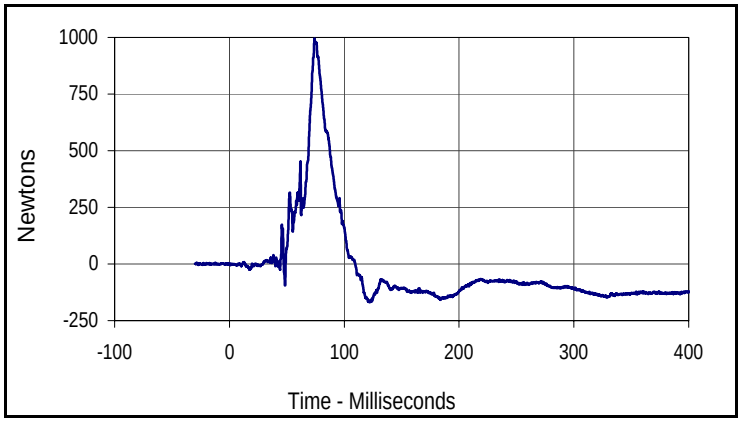
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



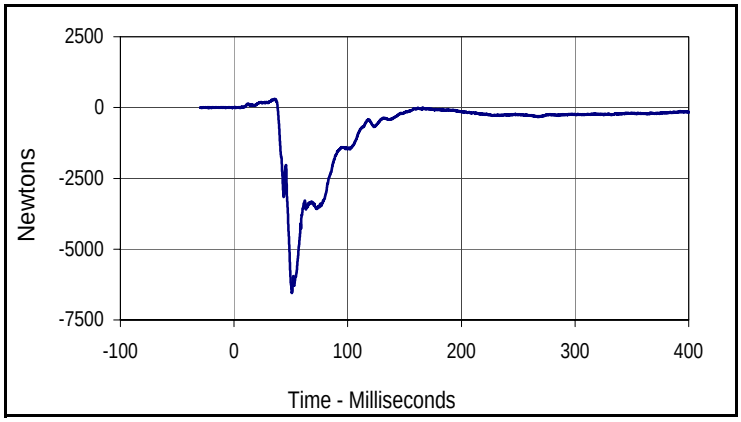
Curve Description			
Driver Right Acetabulum Force Z			
CURNO	Type	SAE Class	Units
069	FIL	600	Newtons
Max	Time	Min	Time
1408.2	73.1	-333.2	48.6



Curve Description			
Driver Left Femur Force X			
CURNO	Type	SAE Class	Units
070	FIL	600	Newtons
Max	Time	Min	Time
919.0	65.6	-110.9	132.3

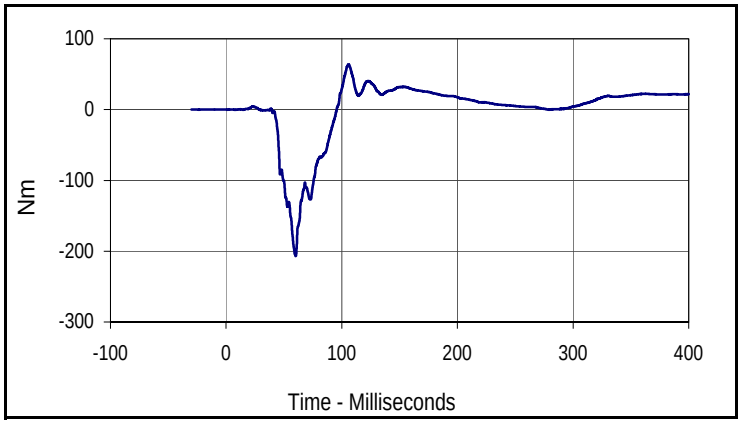


Curve Description			
Driver Left Femur Force Y			
CURNO	Type	SAE Class	Units
071	FIL	600	Newtons
Max	Time	Min	Time
994.4	74.1	-168.5	122.6

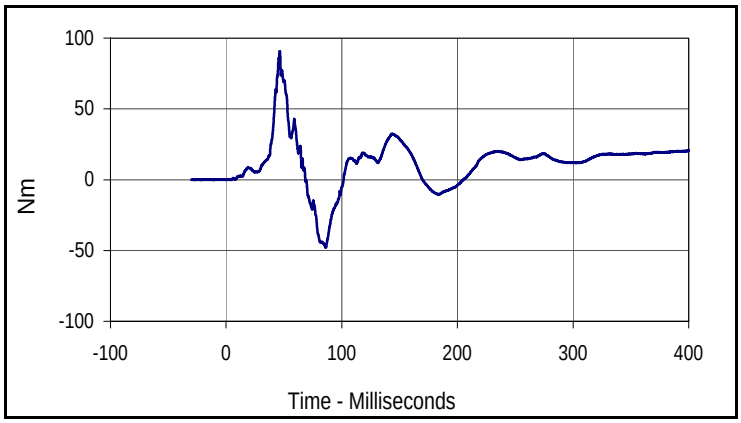


Curve Description			
Driver Left Femur Force Z			
CURNO	Type	SAE Class	Units
072	FIL	600	Newtons
Max	Time	Min	Time
306.7	35.7	-6546.9	50.8

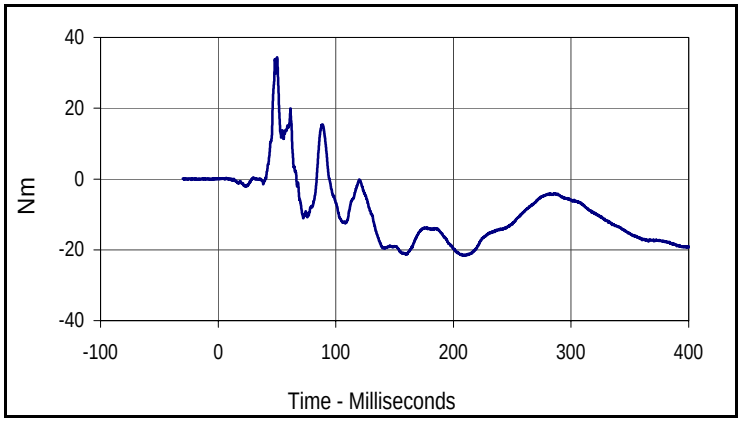
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



Curve Description			
Driver Left Femur Moment X			
CURNO	Type	SAE Class	Units
073	FIL	600	Nm
Max	Time	Min	Time
63.9	105.9	-207.1	60.2

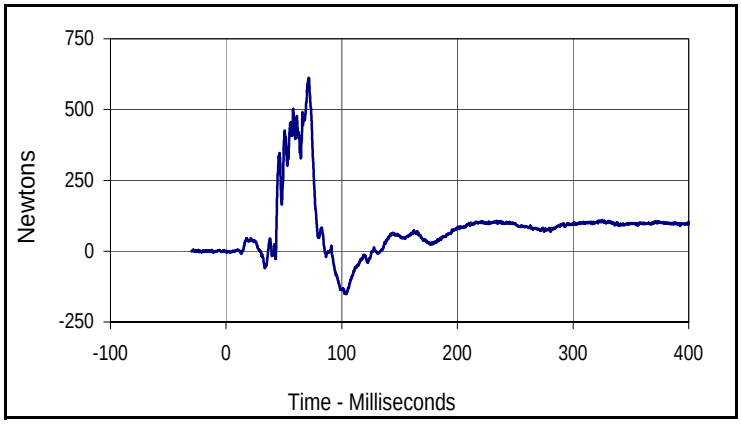


Curve Description			
Driver Left Femur Moment Y			
CURNO	Type	SAE Class	Units
074	FIL	600	Nm
Max	Time	Min	Time
90.8	46.5	-48.0	86.2

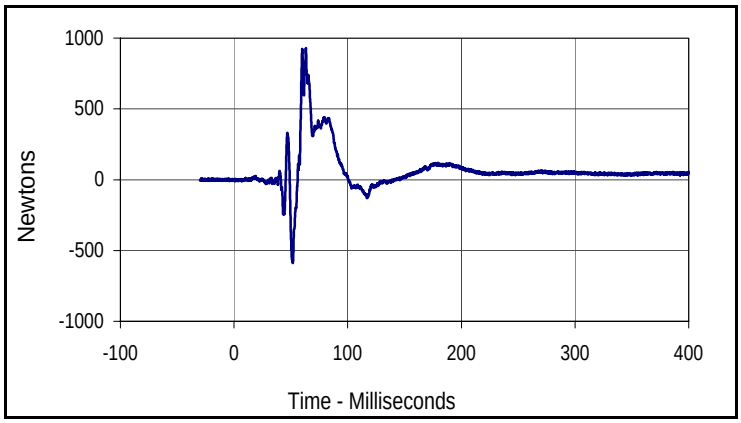


Curve Description			
Driver Left Femur Moment Z			
CURNO	Type	SAE Class	Units
075	FIL	600	Nm
Max	Time	Min	Time
34.4	50.1	-21.7	210.2

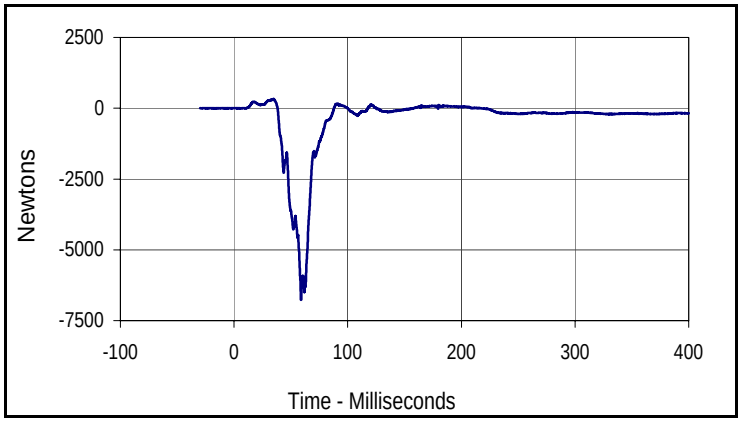
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



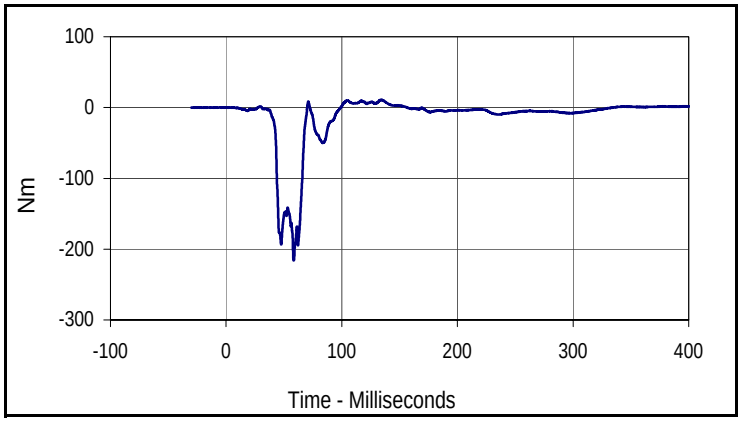
Curve Description			
Driver Right Femur Force X			
CURNO	Type	SAE Class	Units
076	FIL	600	Newtons
Max	Time	Min	Time
612.7	71.5	-151.9	103.8



Curve Description			
Driver Right Femur Force Y			
CURNO	Type	SAE Class	Units
077	FIL	600	Newtons
Max	Time	Min	Time
929.1	63.2	-588.3	51.7

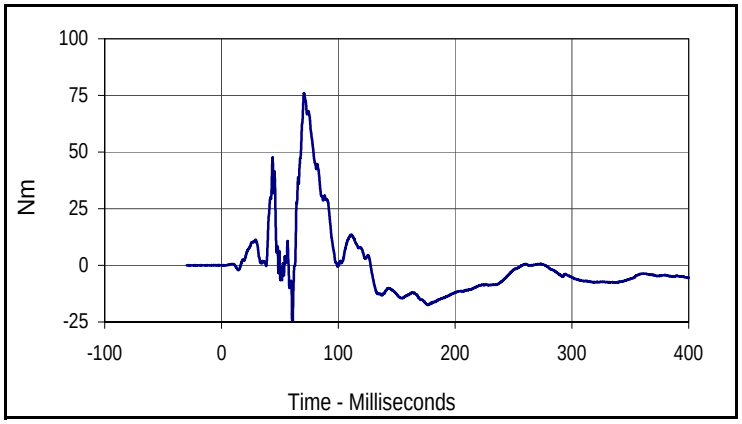


Curve Description			
Driver Right Femur Force Z			
CURNO	Type	SAE Class	Units
078	FIL	600	Newtons
Max	Time	Min	Time
329.8	34.7	-6768.3	59.0

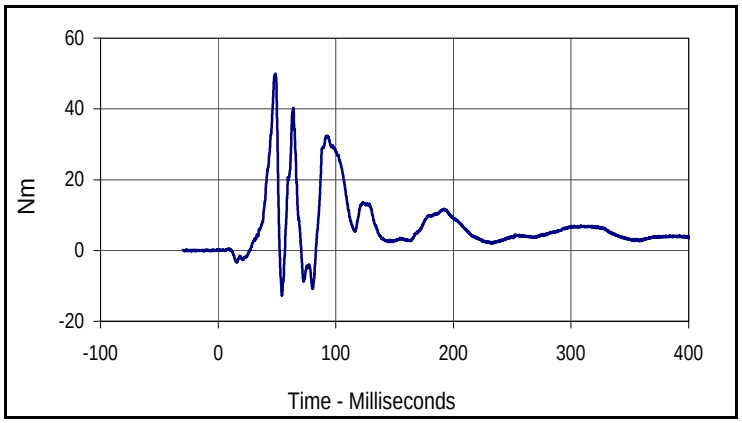


Curve Description			
Driver Right Femur Moment X			
CURNO	Type	SAE Class	Units
079	FIL	600	Nm
Max	Time	Min	Time
11.2	133.9	-216.0	58.4

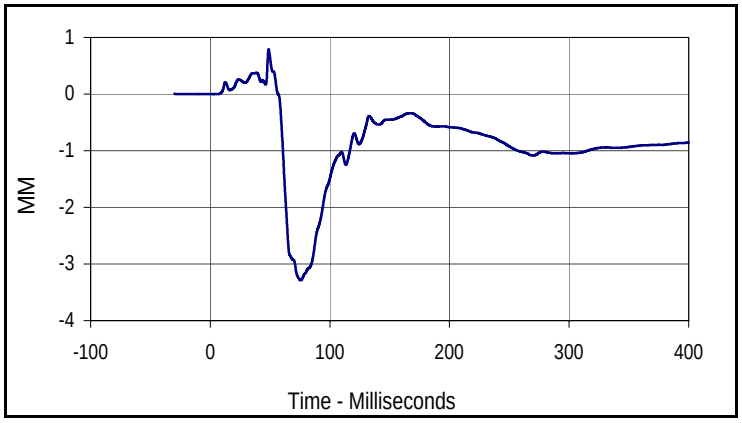
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



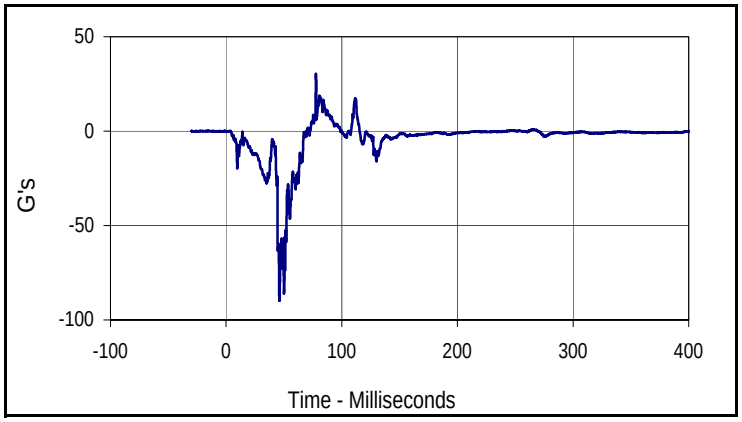
Curve Description			
Driver Right Femur Moment Y			
CURNO	Type	SAE Class	Units
080	FIL	600	Nm
Max	Time	Min	Time
75.9	70.7	-29.3	60.8



Curve Description			
Driver Right Femur Moment Z			
CURNO	Type	SAE Class	Units
081	FIL	600	Nm
Max	Time	Min	Time
50.0	48.6	-12.8	54.2

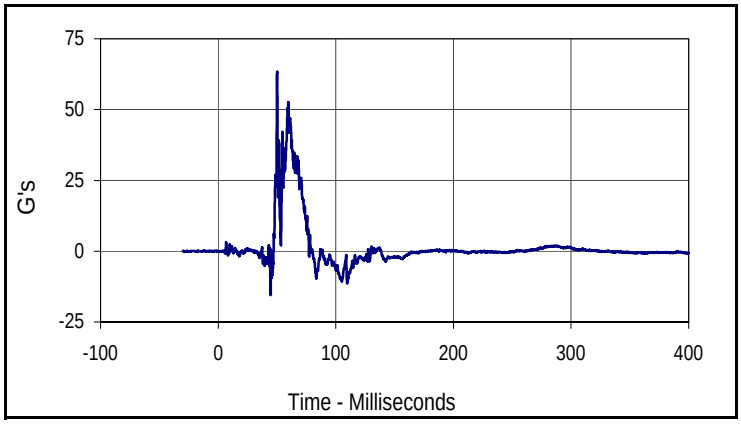


Curve Description			
Driver Left Knee Deflection			
CURNO	Type	SAE Class	Units
082	FIL	180	MM
Max	Time	Min	Time
0.8	48.9	-3.3	75.4

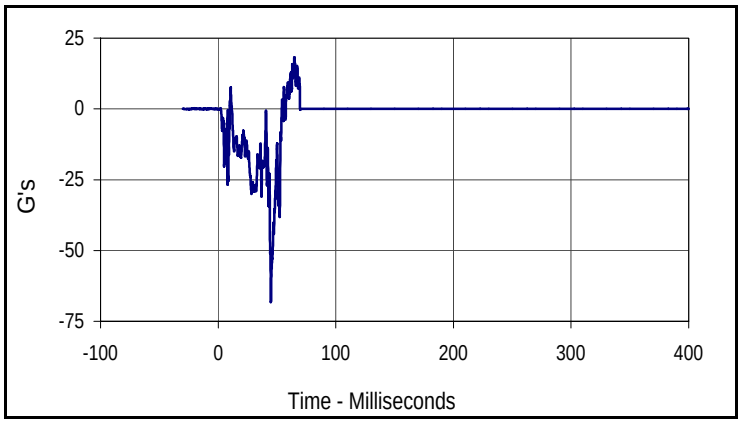


Curve Description			
Driver Left Tibia X			
CURNO	Type	SAE Class	Units
083	FIL	1000	G's
Max	Time	Min	Time
30.4	77.7	-89.8	46.1

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09

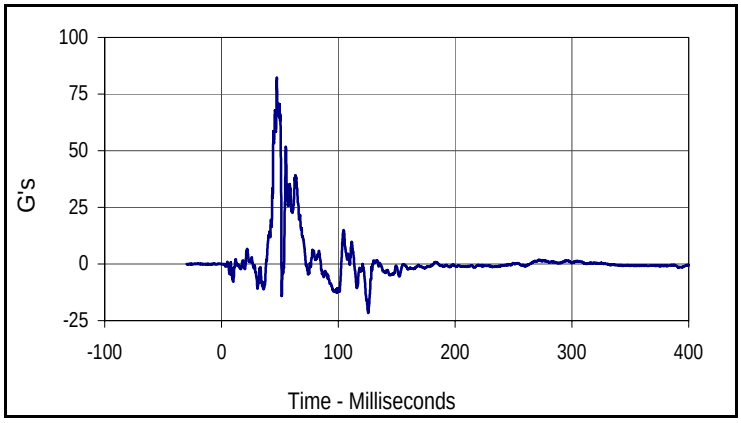


Curve Description			
Driver Left Tibia Y			
CURNO	Type	SAE Class	Units
084	FIL	1000	G's
Max	Time	Min	Time
63.4	50.1	-15.5	44.5

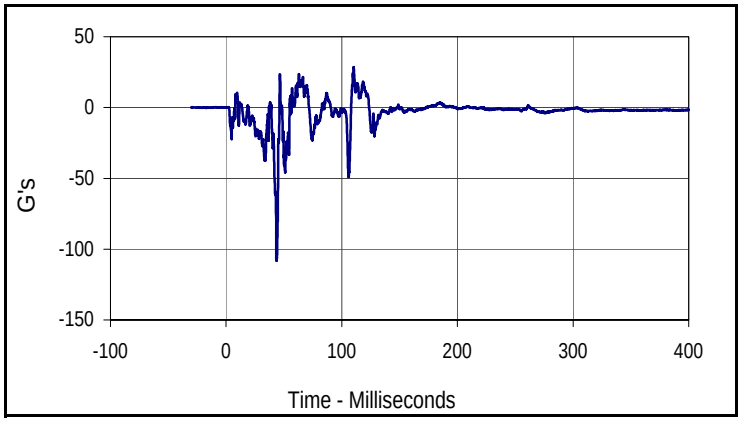


Curve Description			
Driver Left Foot X			
CURNO	Type	SAE Class	Units
085	FIL	1000	G's
Max	Time	Min	Time
18.2	64.8	-68.2	44.8

* Channel failed at 69.3 msec

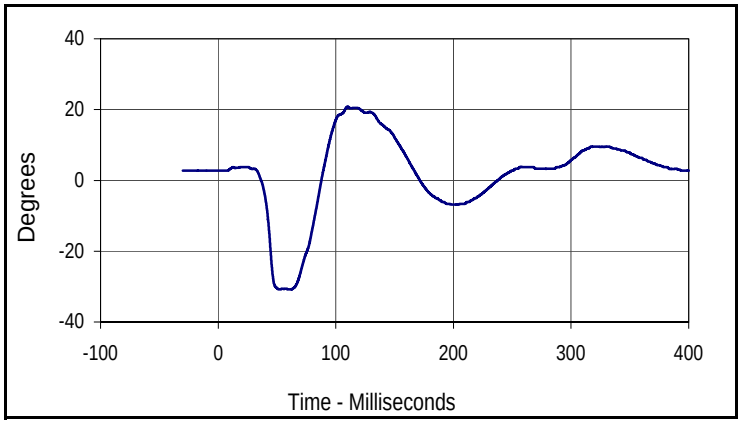


Curve Description			
Driver Left Foot Y			
CURNO	Type	SAE Class	Units
086	FIL	1000	G's
Max	Time	Min	Time
82.3	47.4	-21.6	125.7

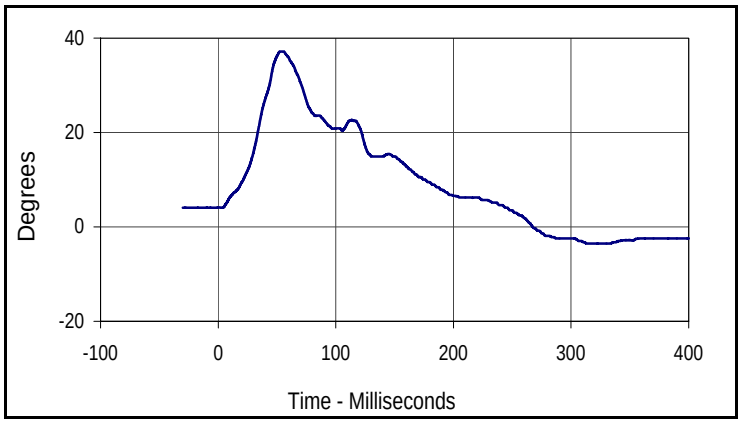


Curve Description			
Driver Left Foot Z			
CURNO	Type	SAE Class	Units
087	FIL	1000	G's
Max	Time	Min	Time
28.6	110.4	-108.2	43.5

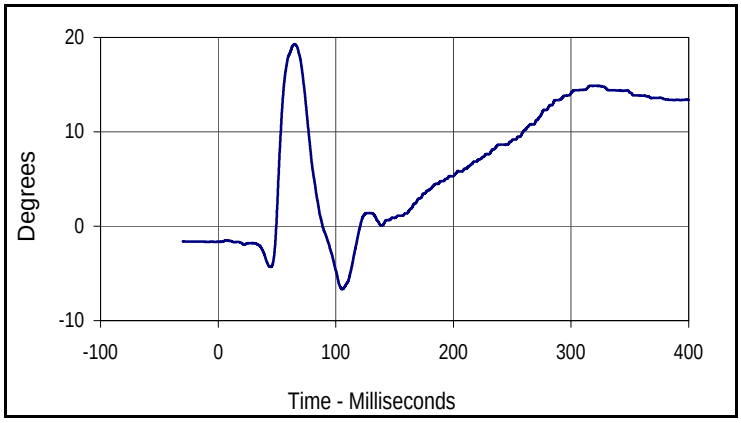
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



Curve Description			
Driver Left Ankle Rotation X			
CURNO	Type	SAE Class	Units
088	FIL	180	Degrees
Max	Time	Min	Time
20.8	110.1	-30.8	51.7

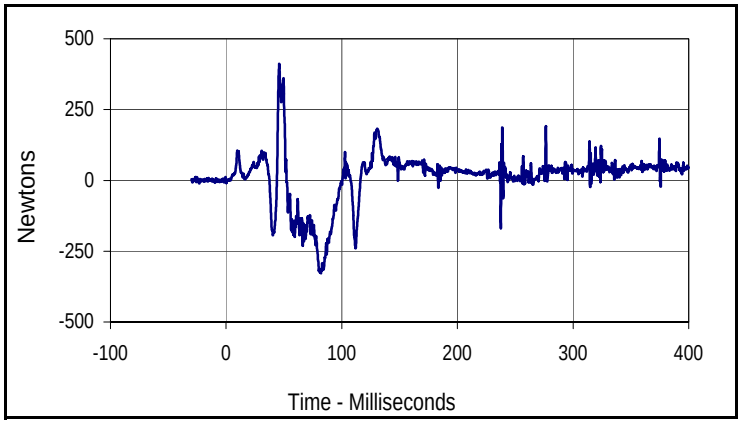


Curve Description			
Driver Left Ankle Rotation Y			
CURNO	Type	SAE Class	Units
089	FIL	180	Degrees
Max	Time	Min	Time
37.1	55.3	-3.5	315.8

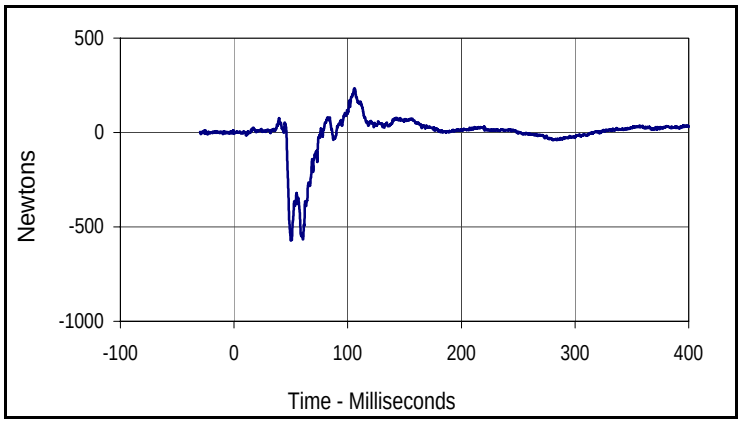


Curve Description			
Driver Left Ankle Rotation Z			
CURNO	Type	SAE Class	Units
090	FIL	180	Degrees
Max	Time	Min	Time
19.3	65.2	-6.7	105.3

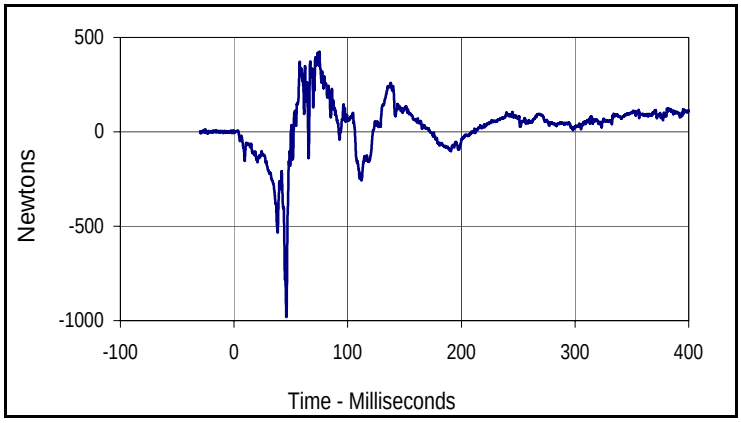
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



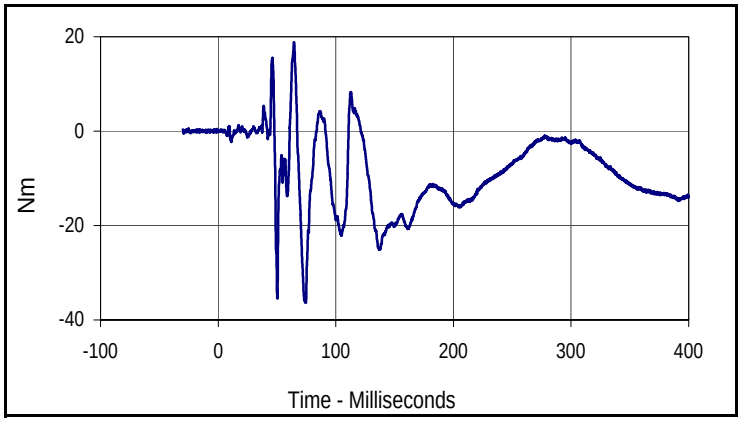
Curve Description			
Driver Left Upper Tibia Force X			
CURNO	Type	SAE Class	Units
091	FIL	600	Newtons
Max	Time	Min	Time
411.4	45.9	-328.2	82.1



Curve Description			
Driver Left Upper Tibia Force Y			
CURNO	Type	SAE Class	Units
092	FIL	600	Newtons
Max	Time	Min	Time
234.3	106.0	-570.6	50.0

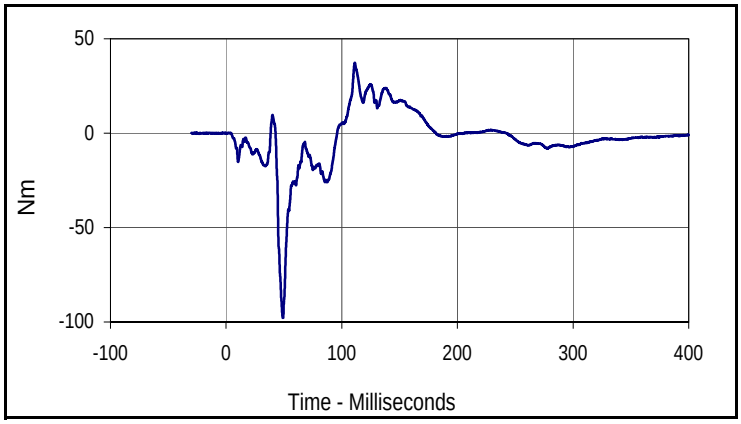


Curve Description			
Driver Left Upper Tibia Force Z			
CURNO	Type	SAE Class	Units
093	FIL	600	Newtons
Max	Time	Min	Time
423.6	75.2	-981.2	46.0

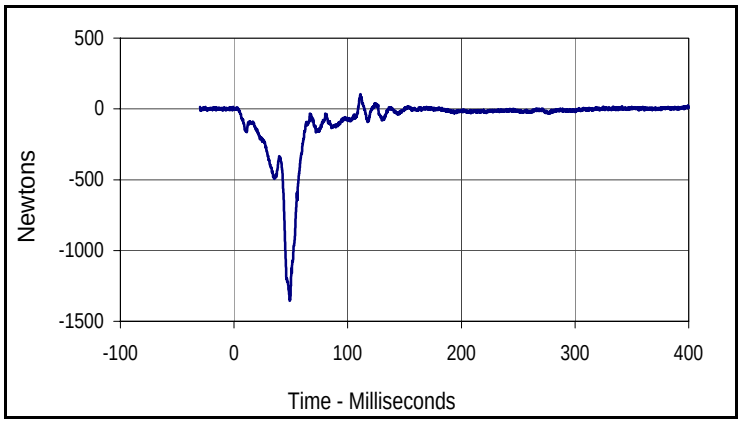


Curve Description			
Driver Left Upper Tibia Moment X			
CURNO	Type	SAE Class	Units
094	FIL	600	Nm
Max	Time	Min	Time
18.9	64.5	-36.4	74.6

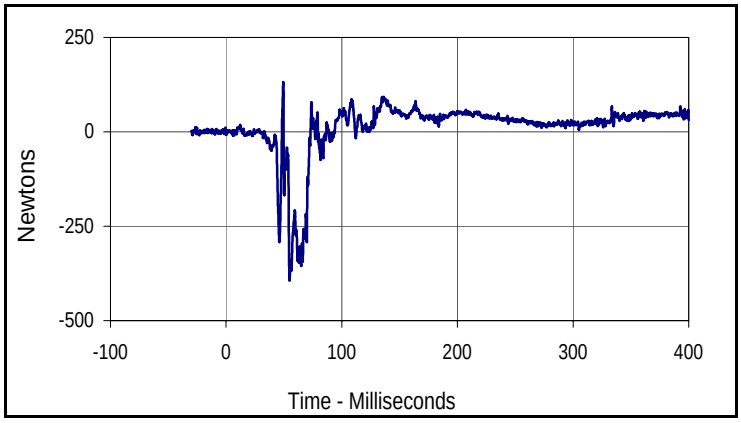
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



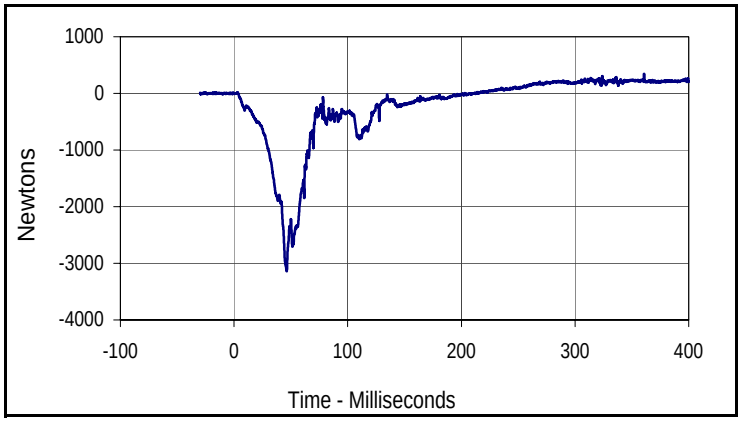
Curve Description			
Driver Left Upper Tibia Moment Y			
CURNO	Type	SAE Class	Units
095	FIL	600	Nm
Max	Time	Min	Time
37.2	111.3	-97.8	49.2



Curve Description			
Driver Left Lower Tibia Force X			
CURNO	Type	SAE Class	Units
096	FIL	600	Newtons
Max	Time	Min	Time
103.8	111.2	-1355.7	49.0

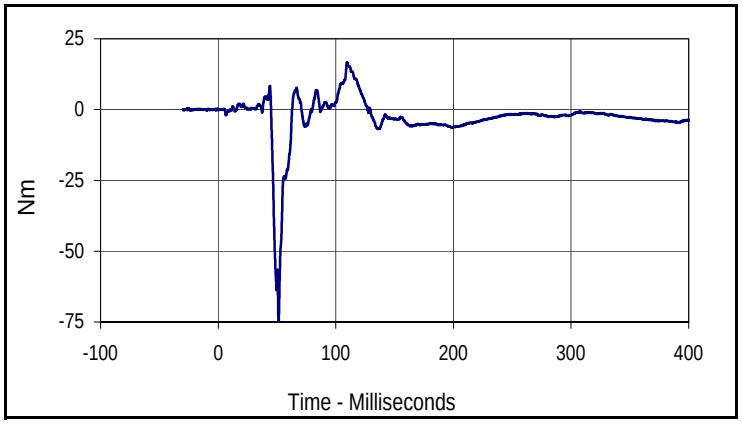


Curve Description			
Driver Left Lower Tibia Force Y			
CURNO	Type	SAE Class	Units
097	FIL	600	Newtons
Max	Time	Min	Time
131.4	49.4	-394.3	54.9

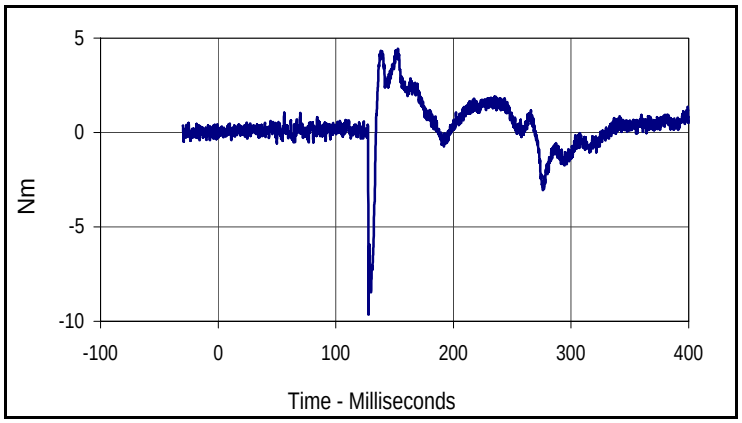


Curve Description			
Driver Left Lower Tibia Force Z			
CURNO	Type	SAE Class	Units
098	FIL	600	Newtons
Max	Time	Min	Time
345.3	360.7	-3143.0	46.4

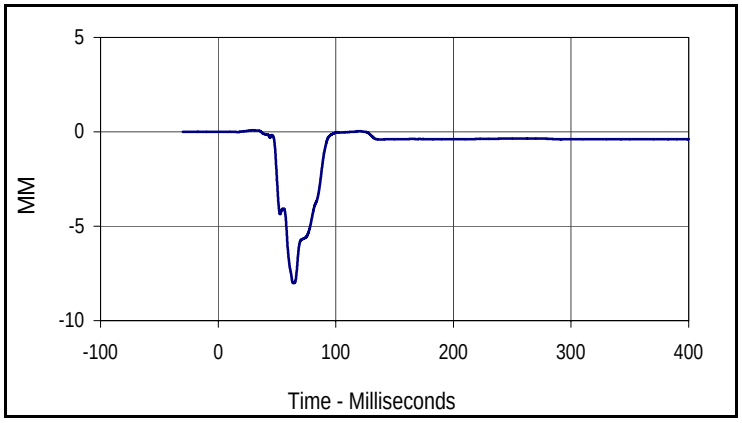
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



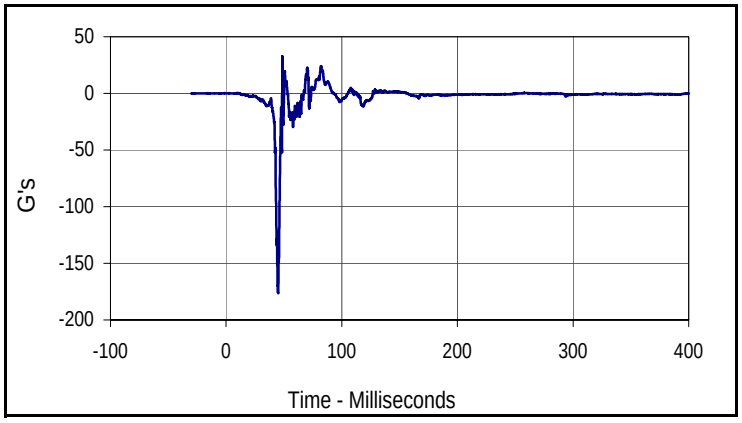
Curve Description			
Driver Left Lower Tibia Moment X			
CURNO	Type	SAE Class	Units
099	FIL	600	Nm
Max	Time	Min	Time
16.7	109.7	-74.7	51.4



Curve Description			
Driver Left Lower Tibia Moment Y			
CURNO	Type	SAE Class	Units
100	FIL	600	Nm
Max	Time	Min	Time
4.4	152.8	-9.6	127.9

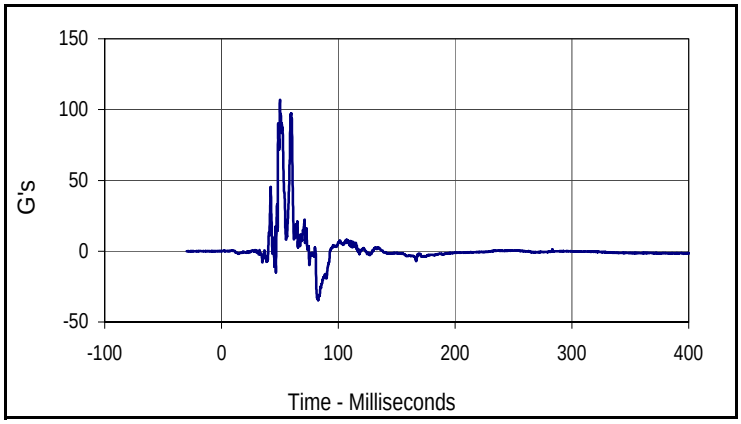


Curve Description			
Driver Right Knee Deflection			
CURNO	Type	SAE Class	Units
101	FIL	180	MM
Max	Time	Min	Time
0.1	29.5	-8.0	64.0

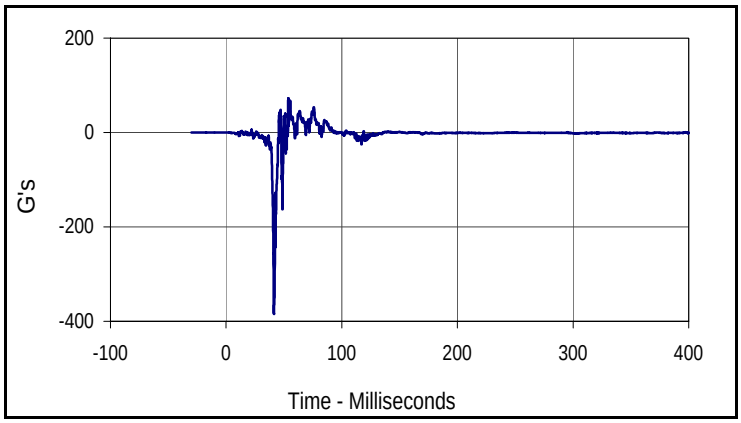


Curve Description			
Driver Right Tibia X			
CURNO	Type	SAE Class	Units
102	FIL	1000	G's
Max	Time	Min	Time
32.9	48.7	-176.2	44.9

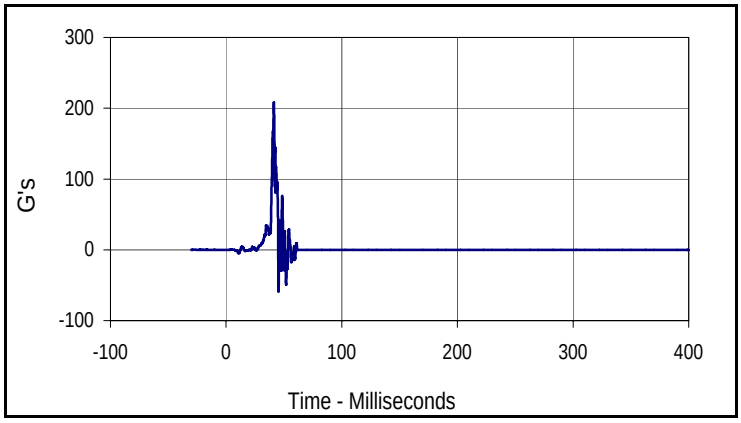
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



Curve Description			
Driver Right Tibia Y			
CURNO	Type	SAE Class	Units
103	FIL	1000	G's
Max	Time	Min	Time
106.8	50.0	-34.7	82.8



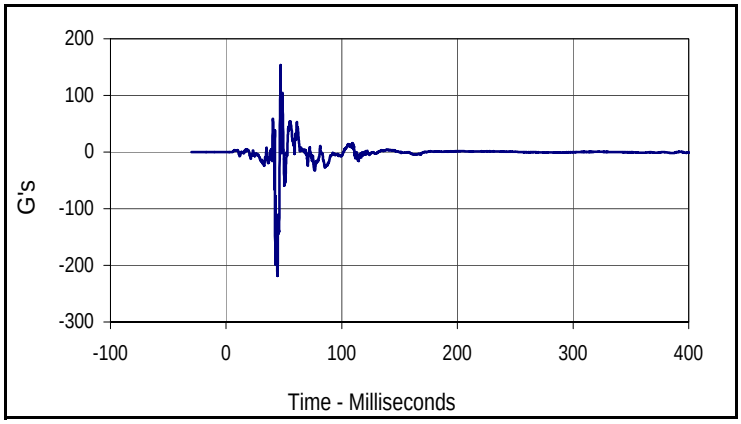
Curve Description			
Driver Right Foot X			
CURNO	Type	SAE Class	Units
104	FIL	1000	G's
Max	Time	Min	Time
72.8	53.8	-384.1	41.3



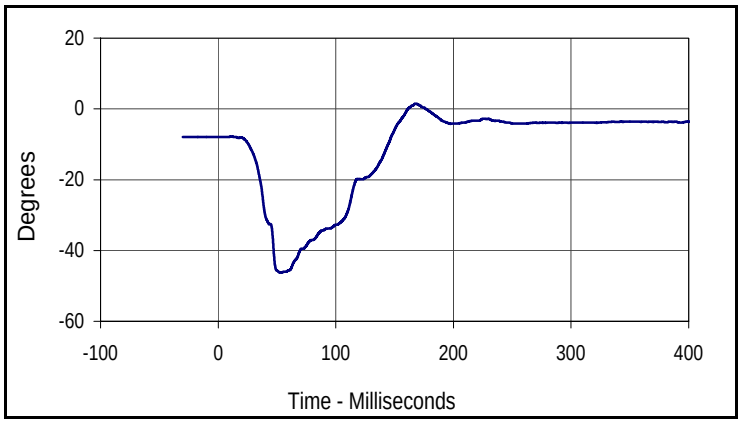
Curve Description			
Driver Right Foot Y			
CURNO	Type	SAE Class	Units
105	FIL	1000	G's
Max	Time	Min	Time
208.7	41.3	-58.8	45.4

* Channel failed at 61.4 msec

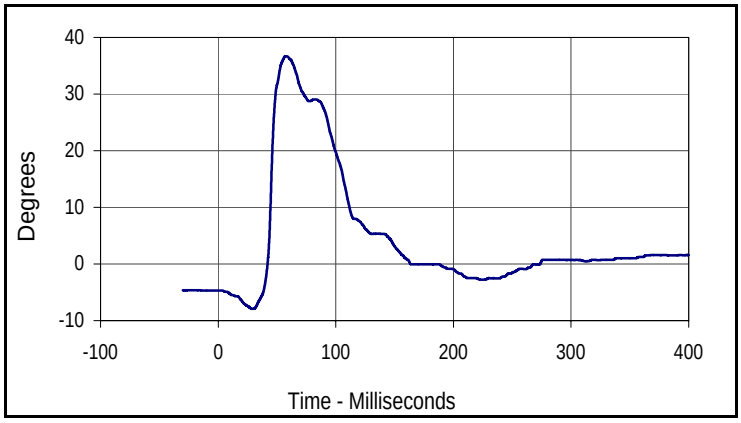
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



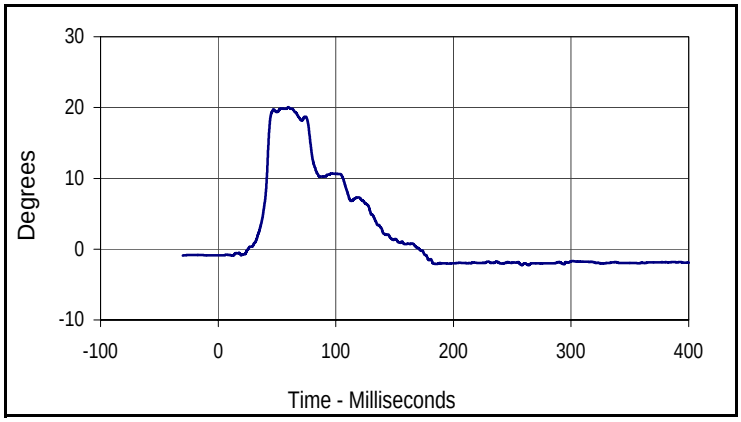
Curve Description			
Driver Right Foot Z			
CURNO	Type	SAE Class	Units
106	FIL	1000	G's
Max	Time	Min	Time
153.7	47.1	-218.5	44.4



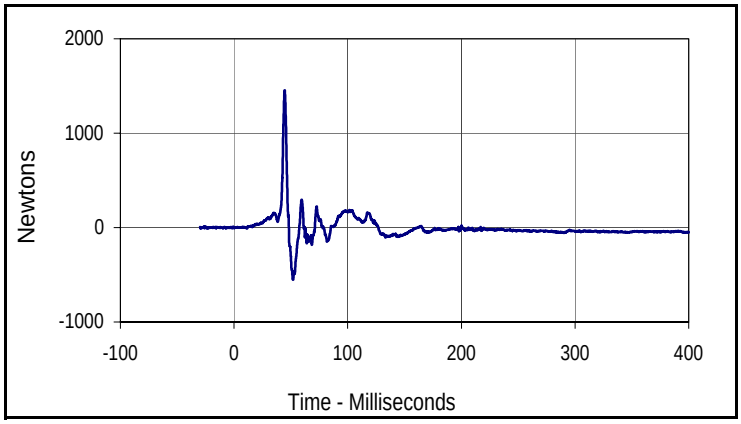
Curve Description			
Driver Right Ankle Rotation X			
CURNO	Type	SAE Class	Units
107	FIL	180	Degrees
Max	Time	Min	Time
1.5	167.9	-46.2	53.1



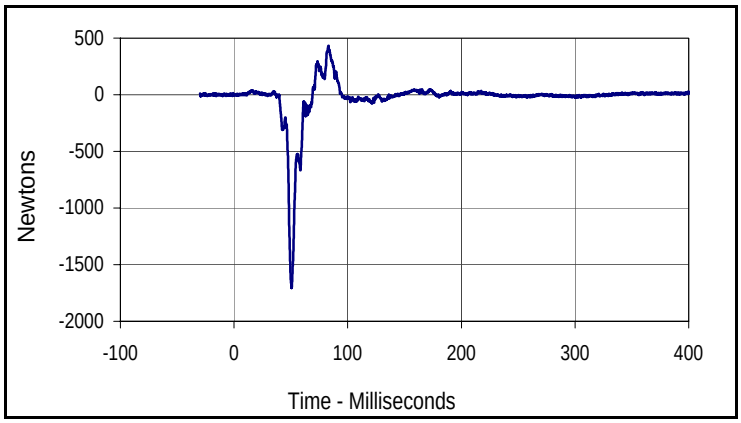
Curve Description			
Driver Right Ankle Rotation Y			
CURNO	Type	SAE Class	Units
108	FIL	180	Degrees
Max	Time	Min	Time
36.7	57.9	-7.9	28.5



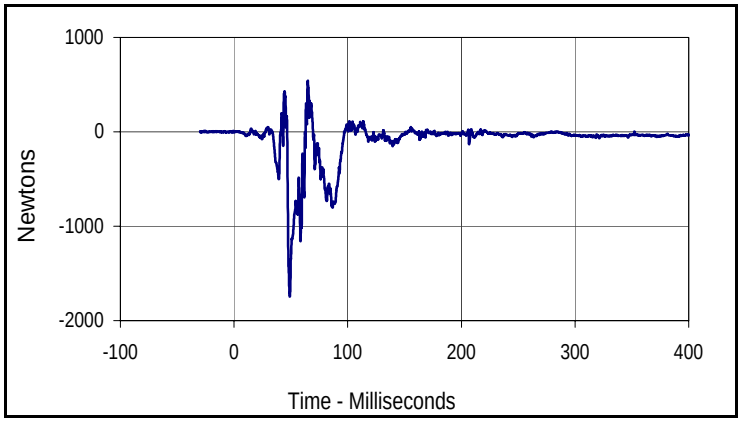
Curve Description			
Driver Right Ankle Rotation Z			
CURNO	Type	SAE Class	Units
109	FIL	180	Degrees
Max	Time	Min	Time
20.0	59.8	-2.3	263.9



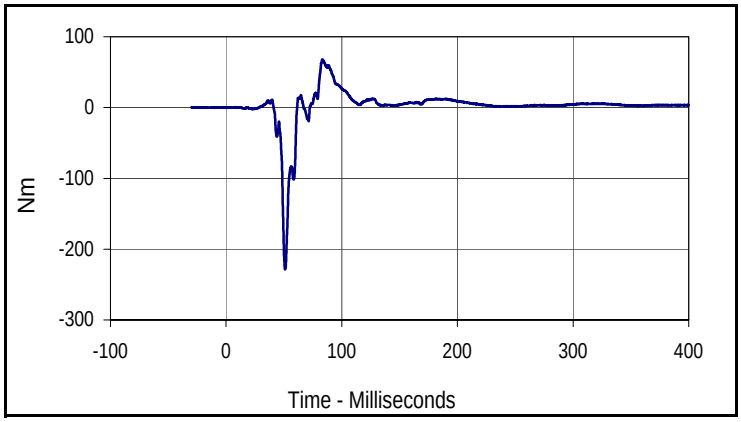
Curve Description			
Driver Right Upper Tibia Force X			
CURNO	Type	SAE Class	Units
110	FIL	600	Newtons
Max	Time	Min	Time
1454.2	44.6	-552.3	51.9



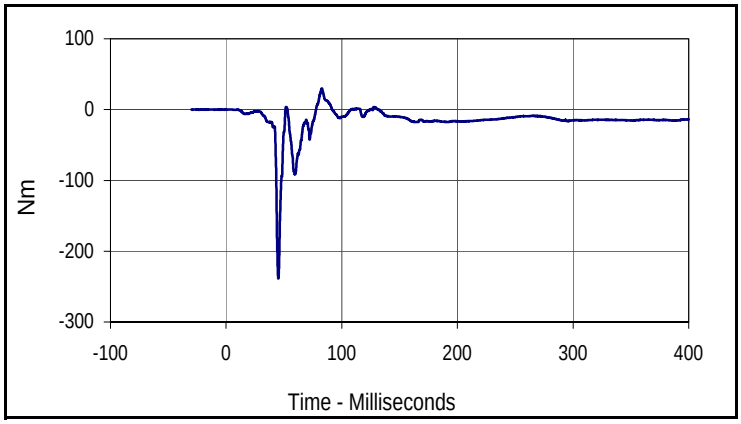
Curve Description			
Driver Right Upper Tibia Force Y			
CURNO	Type	SAE Class	Units
111	FIL	600	Newtons
Max	Time	Min	Time
433.1	83.1	-1705.7	50.6



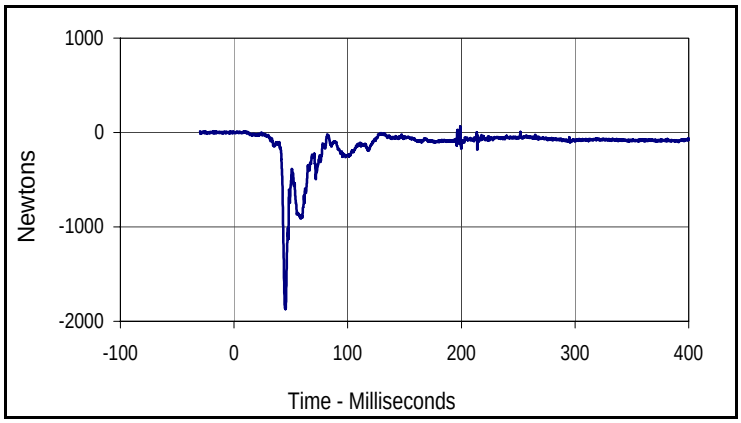
Curve Description			
Driver Right Upper Tibia Force Z			
CURNO	Type	SAE Class	Units
112	FIL	600	Newtons
Max	Time	Min	Time
542.8	64.9	-1745.5	49.0



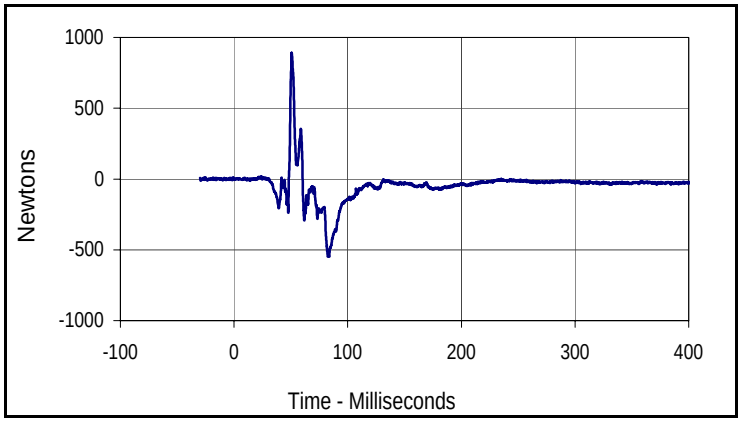
Curve Description			
Driver Right Upper Tibia Moment X			
CURNO	Type	SAE Class	Units
113	FIL	600	Nm
Max	Time	Min	Time
68.0	83.3	-228.4	51.0



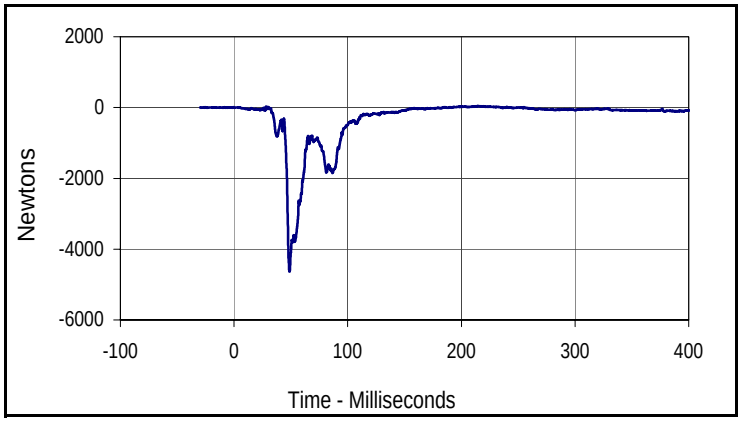
Curve Description			
Driver Right Upper Tibia Moment Y			
CURNO	Type	SAE Class	Units
114	FIL	600	Nm
Max	Time	Min	Time
30.1	82.8	-238.5	45.1



Curve Description			
Driver Right Lower Tibia Force X			
CURNO	Type	SAE Class	Units
115	FIL	600	Newtons
Max	Time	Min	Time
64.2	199.0	-1872.4	45.3

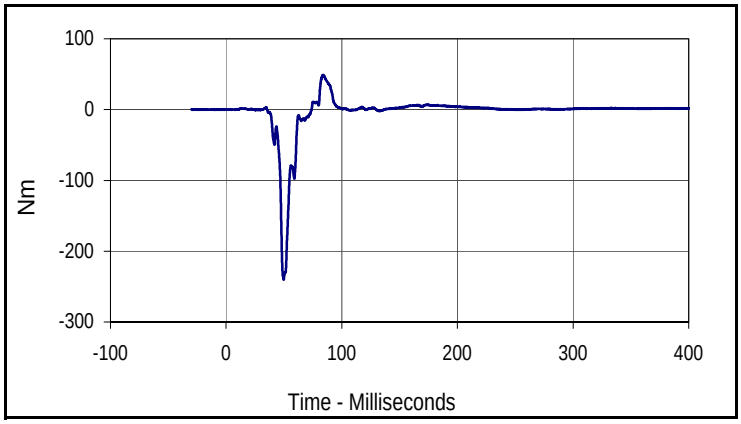


Curve Description			
Driver Right Lower Tibia Force Y			
CURNO	Type	SAE Class	Units
116	FIL	600	Newtons
Max	Time	Min	Time
892.0	50.7	-548.2	83.6

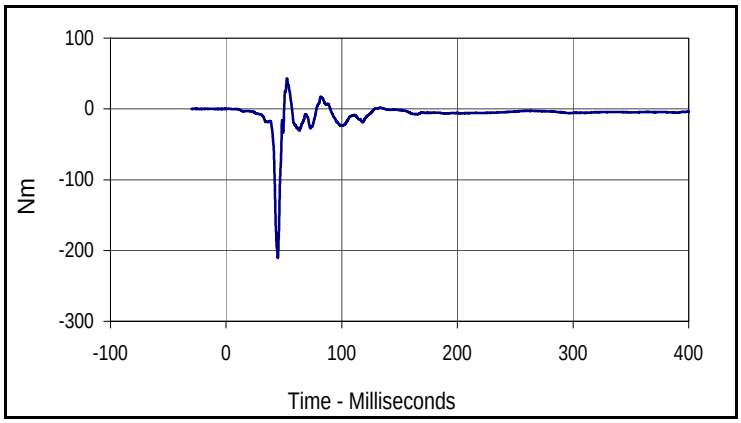


Curve Description			
Driver Right Lower Tibia Force Z			
CURNO	Type	SAE Class	Units
117	FIL	600	Newtons
Max	Time	Min	Time
47.1	214.6	-4630.5	48.8

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09

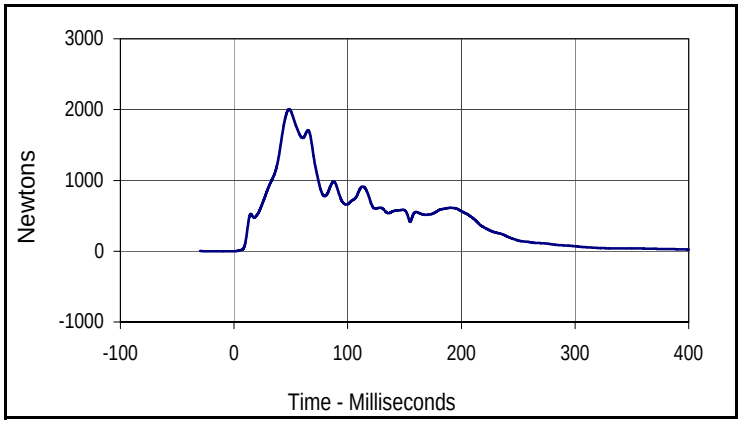


Curve Description			
Driver Right Lower Tibia Moment X			
CURNO	Type	SAE Class	Units
118	FIL	600	Nm
Max	Time	Min	Time
49.1	84.0	-240.3	49.8

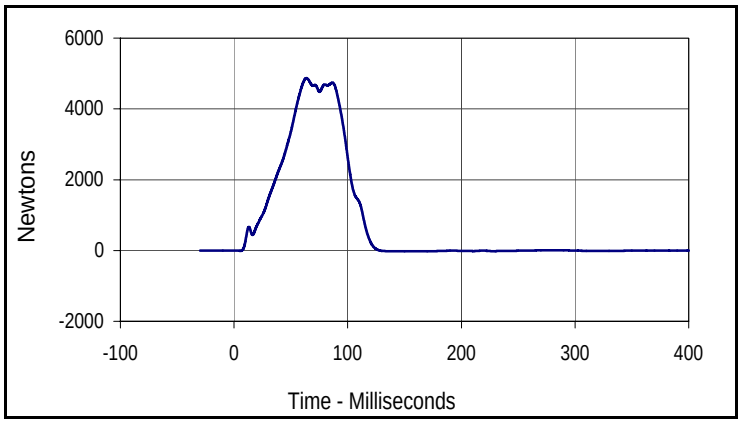


Curve Description			
Driver Right Lower Tibia Moment Y			
CURNO	Type	SAE Class	Units
119	FIL	600	Nm
Max	Time	Min	Time
43.1	52.7	-210.4	44.7

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09

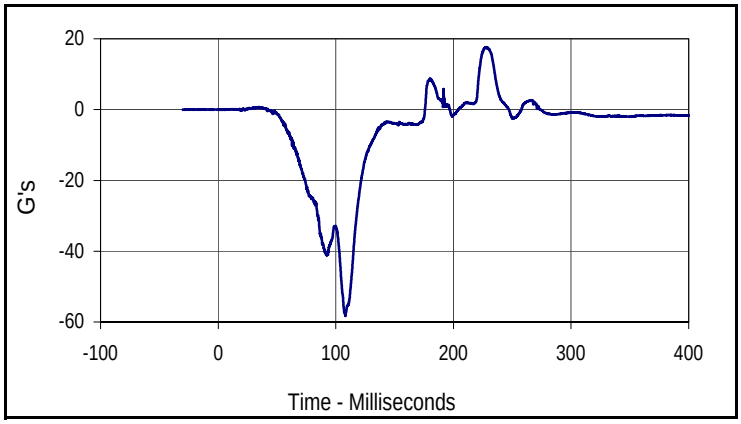


Curve Description			
Driver Lap Belt Force			
CURNO	Type	SAE Class	Units
120	FIL	60	Newtons
Max	Time	Min	Time
2004.2	48.5	-0.6	0.0

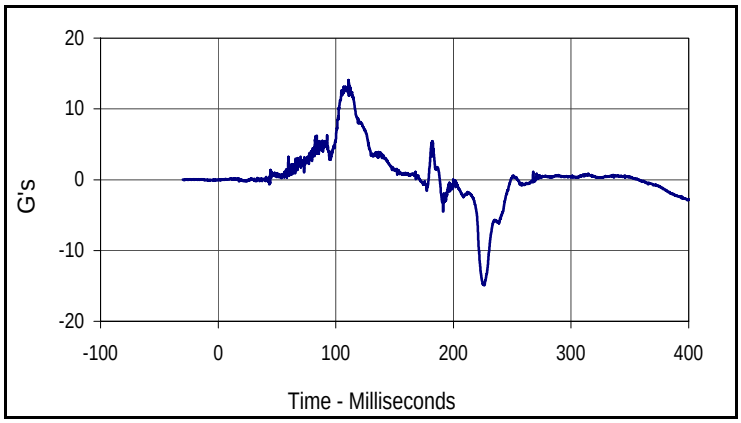


Curve Description			
Driver Shoulder Belt Force			
CURNO	Type	SAE Class	Units
121	FIL	60	Newtons
Max	Time	Min	Time
4868.8	63.7	-22.2	154.3

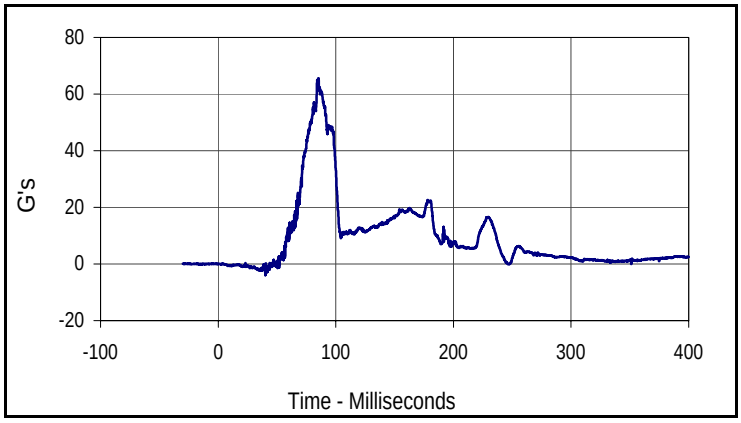
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



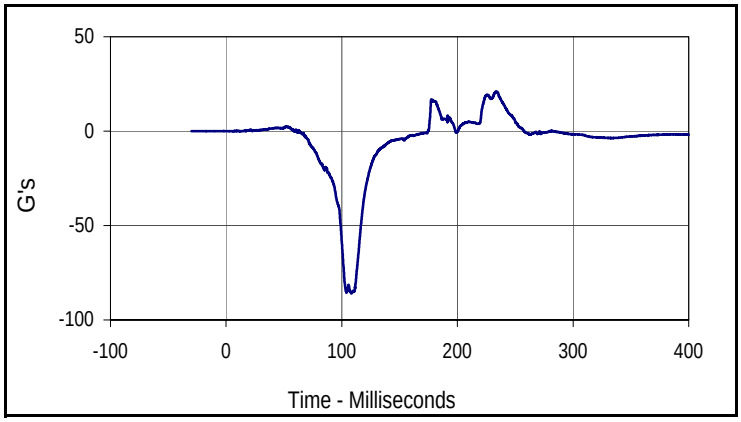
Curve Description			
LR Passenger Head CG X			
CURNO	Type	SAE Class	Units
122	FIL	1000	G's
Max	Time	Min	Time
17.6	227.8	-58.2	108.1



Curve Description			
LR Passenger Head CG Y			
CURNO	Type	SAE Class	Units
123	FIL	1000	G's
Max	Time	Min	Time
14.0	110.8	-14.9	226.4

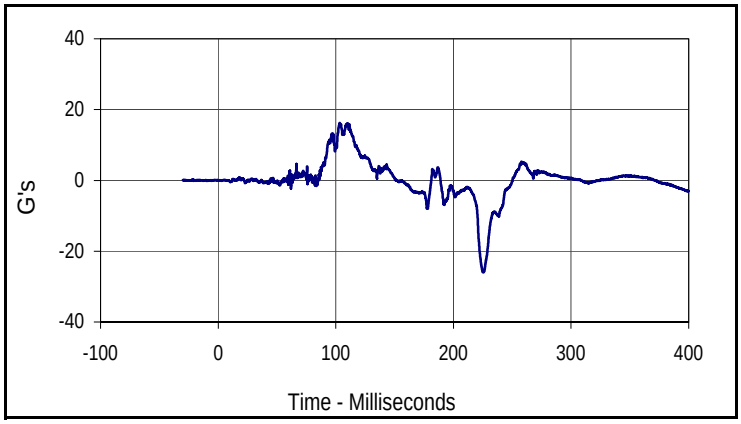


Curve Description			
LR Passenger Head CG Z			
CURNO	Type	SAE Class	Units
124	FIL	1000	G's
Max	Time	Min	Time
65.6	85.3	-3.9	40.1

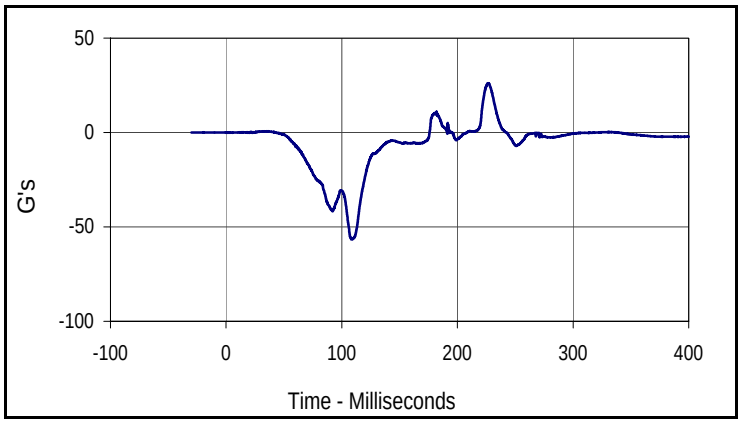


Curve Description			
LR Passenger Top Head Array X			
CURNO	Type	SAE Class	Units
125	FIL	1000	G's
Max	Time	Min	Time
21.0	234.0	-85.9	108.3

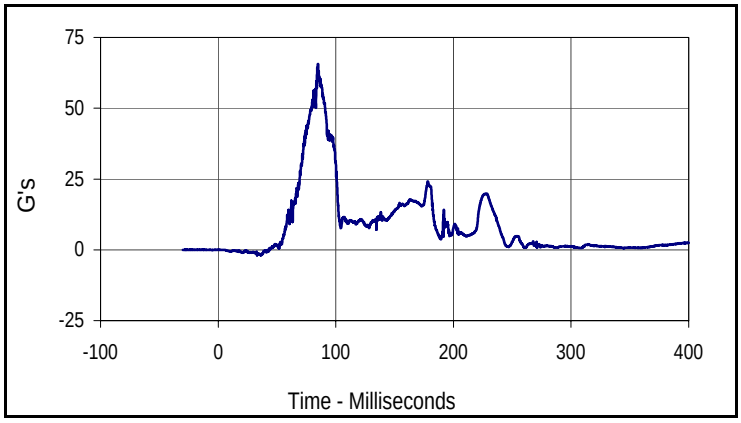
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



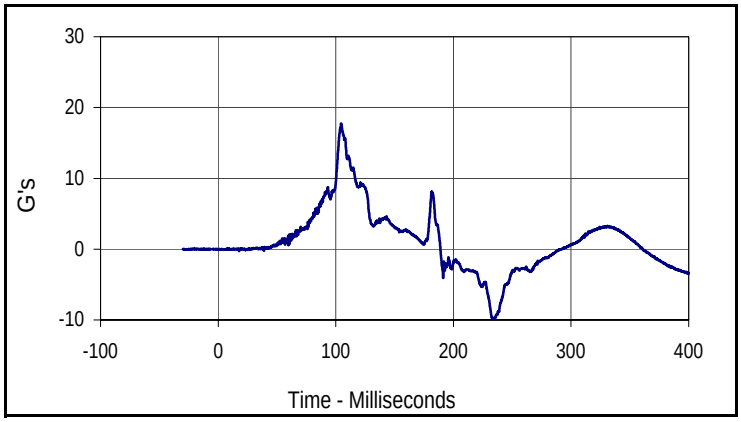
Curve Description			
LR Passenger Top Head Array Y			
CURNO	Type	SAE Class	Units
126	FIL	1000	G's
Max	Time	Min	Time
16.3	103.4	-26.0	225.4



Curve Description			
LR Passenger Left Side Head Array X			
CURNO	Type	SAE Class	Units
127	FIL	1000	G's
Max	Time	Min	Time
26.1	226.6	-56.7	108.8

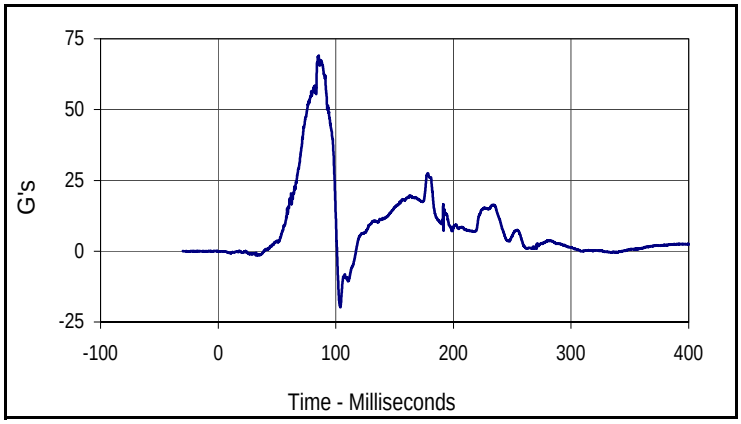


Curve Description			
LR Passenger Left Side Head Array Z			
CURNO	Type	SAE Class	Units
128	FIL	1000	G's
Max	Time	Min	Time
65.6	84.9	-2.0	36.6

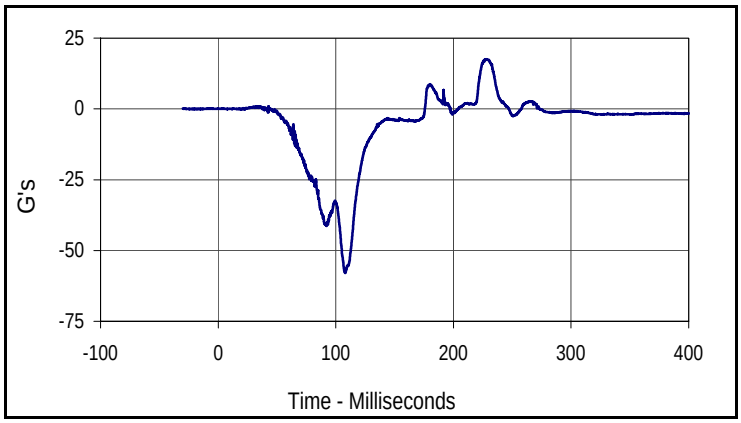


Curve Description			
LR Passenger Front Head Array Y			
CURNO	Type	SAE Class	Units
129	FIL	1000	G's
Max	Time	Min	Time
17.7	104.6	-9.9	234.1

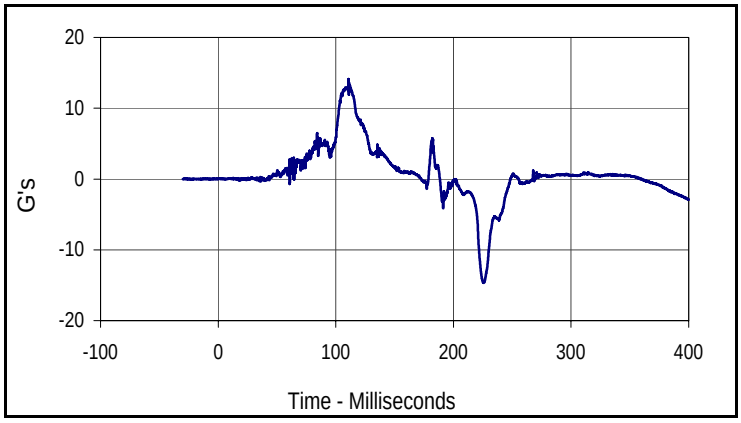
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



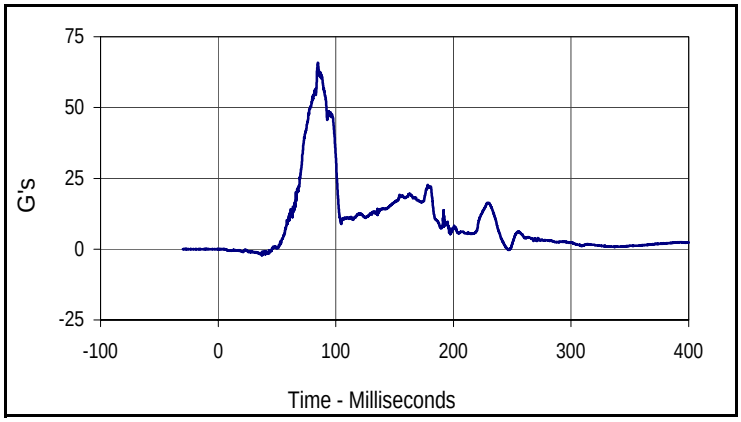
Curve Description			
LR Passenger Front Head Array Z			
CURNO	Type	SAE Class	Units
130	FIL	1000	G's
Max	Time	Min	Time
69.2	85.5	-19.8	103.8



Curve Description			
LR Passenger Head CG X Redundant			
CURNO	Type	SAE Class	Units
131	FIL	1000	G's
Max	Time	Min	Time
17.6	227.0	-58.0	108.0

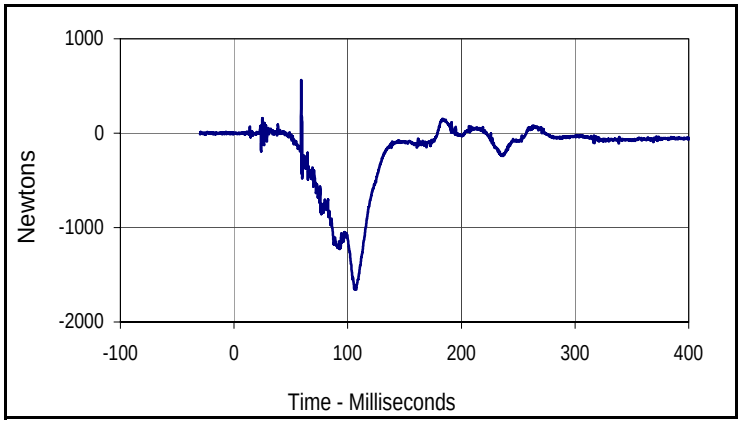


Curve Description			
LR Passenger Head CG Y Redundant			
CURNO	Type	SAE Class	Units
132	FIL	1000	G's
Max	Time	Min	Time
14.1	110.8	-14.7	225.6

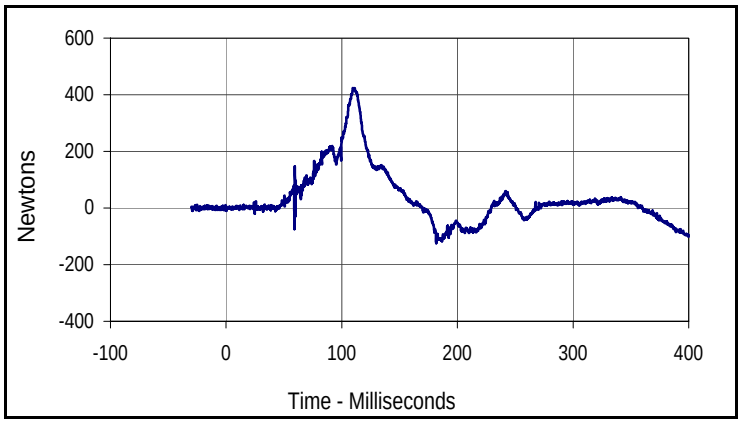


Curve Description			
LR Passenger Head CG Z Redundant			
CURNO	Type	SAE Class	Units
133	FIL	1000	G's
Max	Time	Min	Time
65.9	84.8	-2.2	37.2

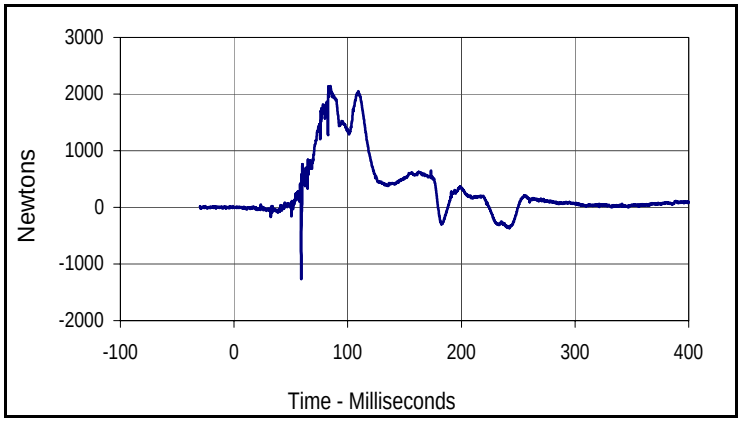
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



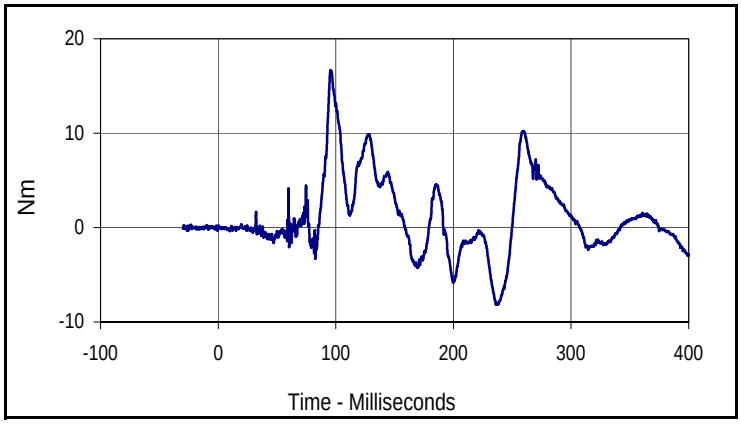
Curve Description			
LR Passenger Upper Neck Force X			
CURNO	Type	SAE Class	Units
134	FIL	1000	Newtons
Max	Time	Min	Time
562.8	59.1	-1658.1	107.4



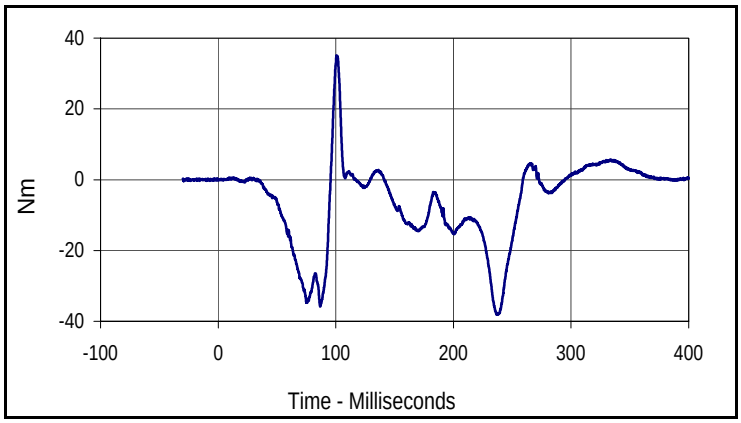
Curve Description			
LR Passenger Upper Neck Force Y			
CURNO	Type	SAE Class	Units
135	FIL	1000	Newtons
Max	Time	Min	Time
423.9	109.7	-123.8	181.6



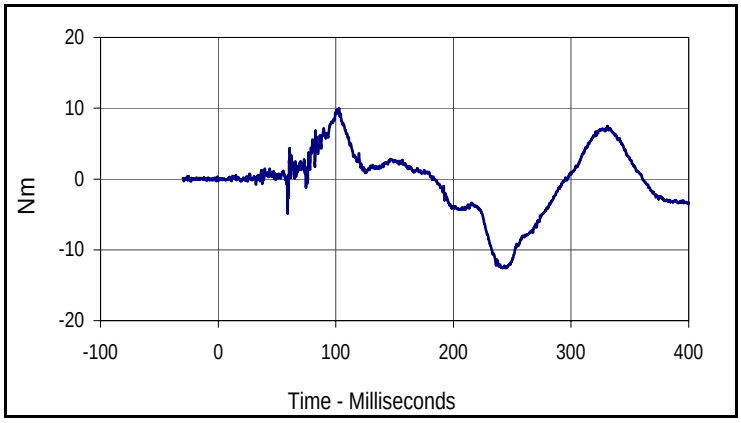
Curve Description			
LR Passenger Upper Neck Force Z			
CURNO	Type	SAE Class	Units
136	FIL	1000	Newtons
Max	Time	Min	Time
2143.9	84.8	-1262.6	59.1



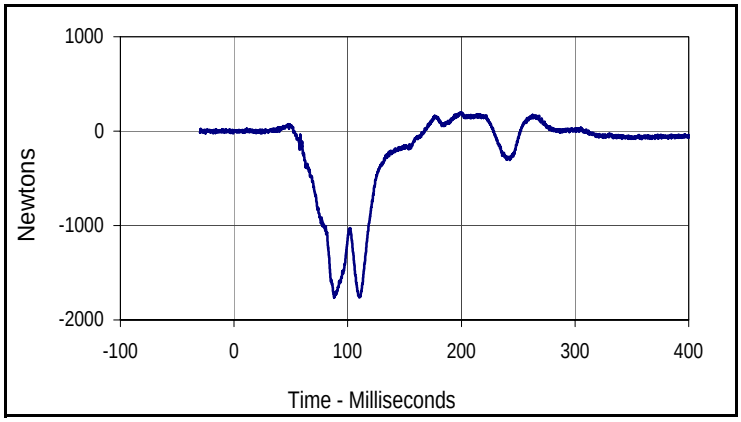
Curve Description			
LR Passenger Upper Neck Moment X			
CURNO	Type	SAE Class	Units
137	FIL	600	Nm
Max	Time	Min	Time
16.7	95.4	-8.2	236.1



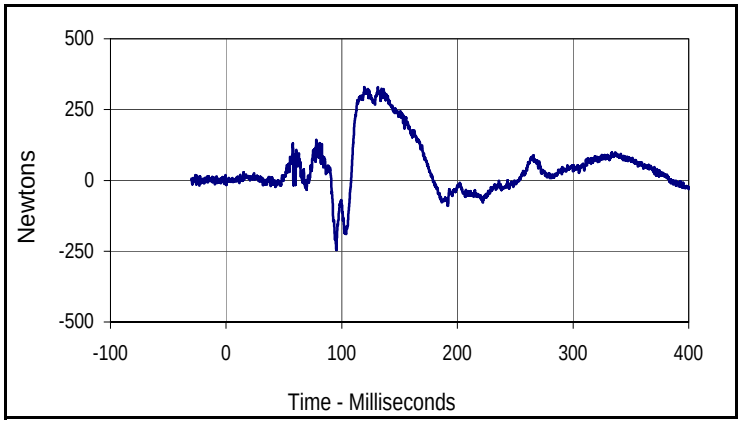
Curve Description			
LR Passenger Upper Neck Moment Y			
CURNO	Type	SAE Class	Units
138	FIL	600	Nm
Max	Time	Min	Time
35.1	100.7	-38.1	237.3



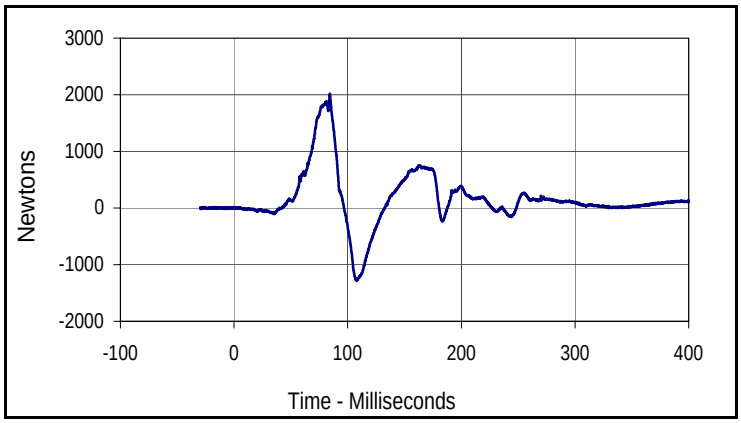
Curve Description			
LR Passenger Upper Neck Moment Z			
CURNO	Type	SAE Class	Units
139	FIL	600	Nm
Max	Time	Min	Time
10.0	102.8	-12.6	244.7



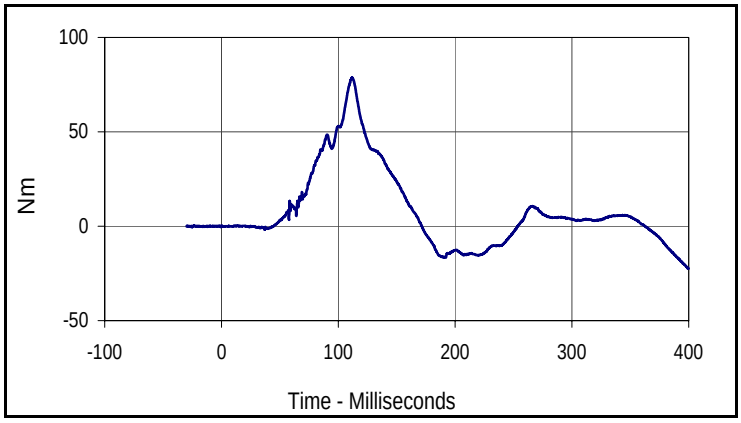
Curve Description			
LR Passenger Lower Neck Force X			
CURNO	Type	SAE Class	Units
140	FIL	1000	Newtons
Max	Time	Min	Time
198.4	199.7	-1762.4	88.1



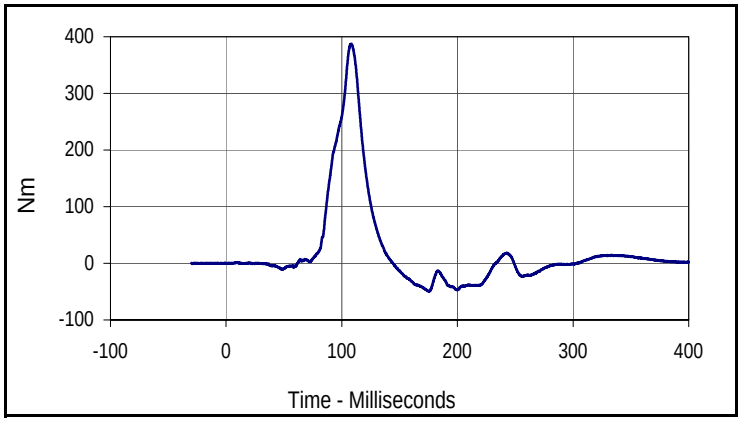
Curve Description			
LR Passenger Lower Neck Force Y			
CURNO	Type	SAE Class	Units
141	FIL	1000	Newtons
Max	Time	Min	Time
329.2	119.5	-245.6	95.3



Curve Description			
LR Passenger Lower Neck Force Z			
CURNO	Type	SAE Class	Units
142	FIL	1000	Newtons
Max	Time	Min	Time
2016.7	84.2	-1281.1	108.0

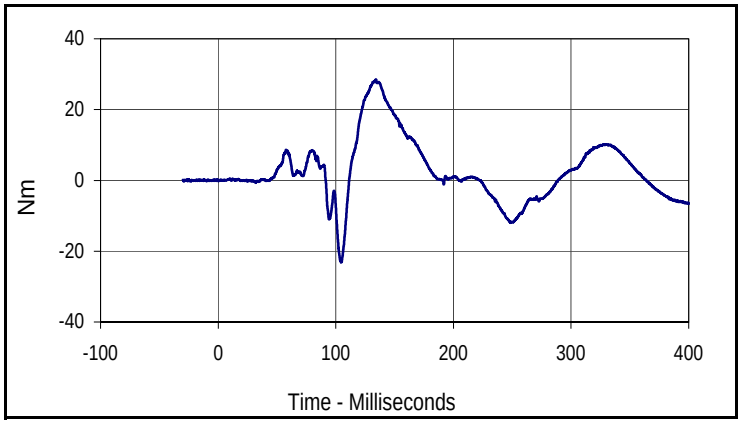


Curve Description			
LR Passenger Lower Neck Moment X			
CURNO	Type	SAE Class	Units
143	FIL	600	Nm
Max	Time	Min	Time
78.7	111.8	-22.4	399.9

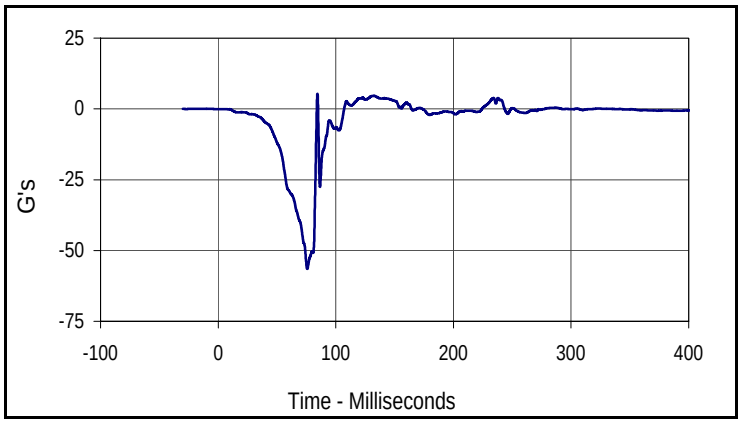


Curve Description			
LR Passenger Lower Neck Moment Y			
CURNO	Type	SAE Class	Units
144	FIL	600	Nm
Max	Time	Min	Time
387.6	108.3	-50.2	175.5

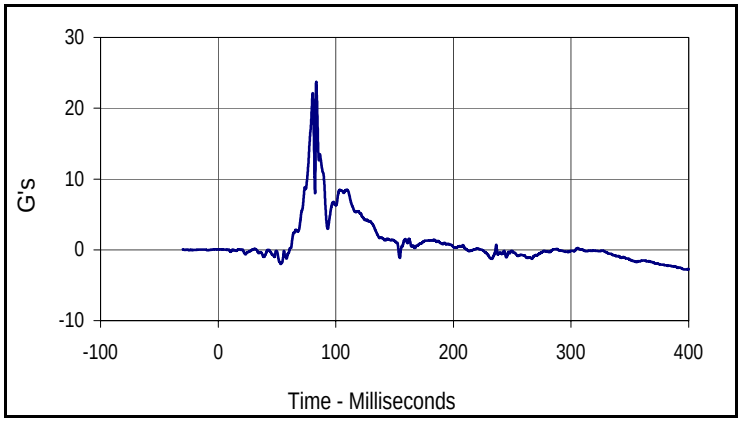
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



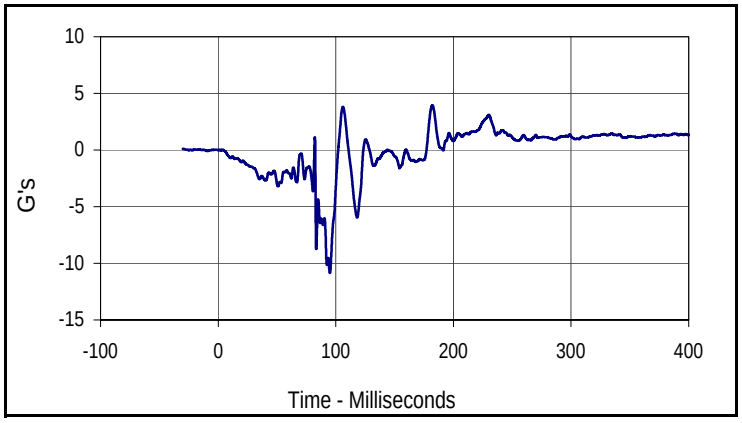
Curve Description			
LR Passenger Lower Neck Moment Z			
CURNO	Type	SAE Class	Units
145	FIL	600	Nm
Max	Time	Min	Time
28.5	134.1	-23.1	104.7



Curve Description			
LR Passenger Chest X Primary			
CURNO	Type	SAE Class	Units
146	FIL	180	G's
Max	Time	Min	Time
5.3	84.4	-56.5	75.7

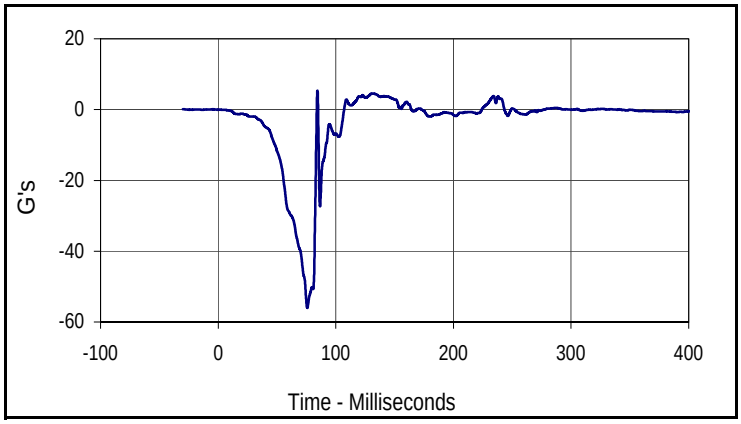


Curve Description			
LR Passenger Chest Y Primary			
CURNO	Type	SAE Class	Units
147	FIL	180	G's
Max	Time	Min	Time
23.7	83.3	-2.8	397.8

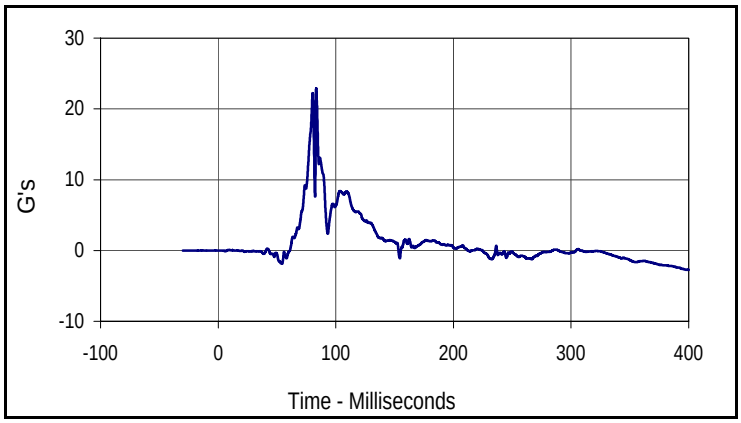


Curve Description			
LR Passenger Chest Z Primary			
CURNO	Type	SAE Class	Units
148	FIL	180	G's
Max	Time	Min	Time
3.9	182.2	-10.8	95.0

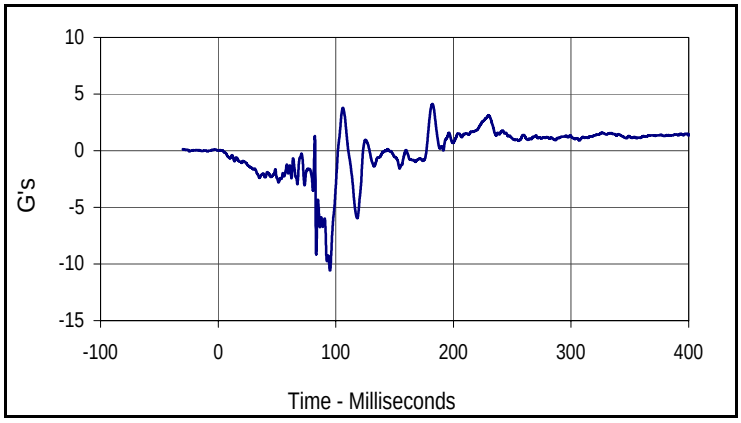
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



Curve Description			
LR Passenger Chest X Redundant			
CURNO	Type	SAE Class	Units
149	FIL	180	G's
Max	Time	Min	Time
5.4	84.4	-56.0	75.8

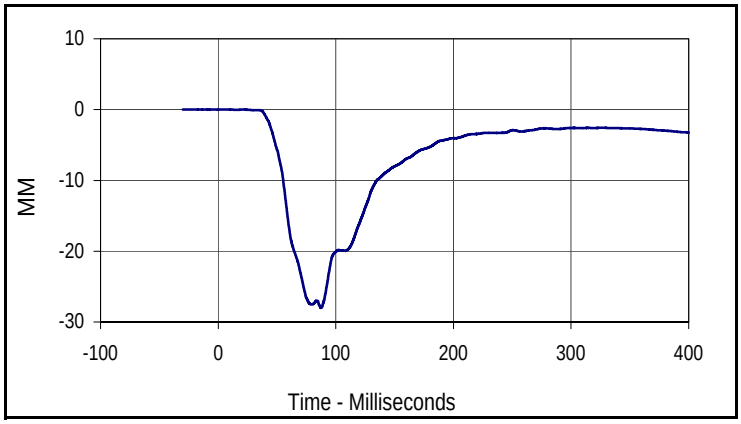


Curve Description			
LR Passenger Chest Y Redundant			
CURNO	Type	SAE Class	Units
150	FIL	180	G's
Max	Time	Min	Time
22.9	83.3	-2.7	398.4

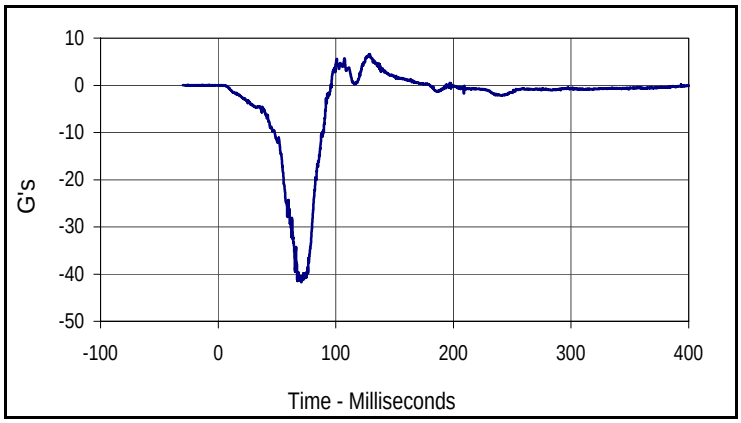


Curve Description			
LR Passenger Chest Z Redundant			
CURNO	Type	SAE Class	Units
151	FIL	180	G's
Max	Time	Min	Time
4.1	182.2	-10.6	95.1

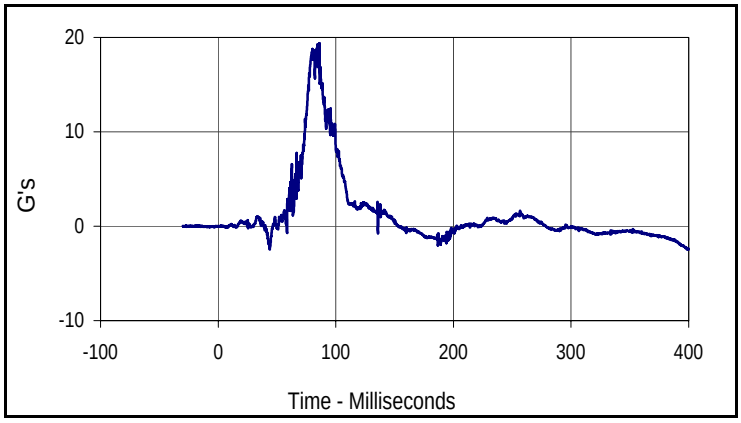
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



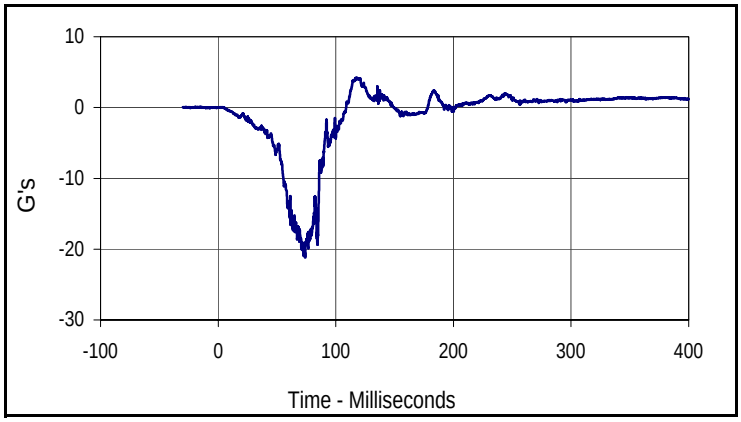
Curve Description			
LR Passenger Chest Deflection			
CURNO	Type	SAE Class	Units
152	FIL	600	MM
Max	Time	Min	Time
0.0	20.8	-28.0	87.2



Curve Description			
LR Passenger Pelvis X Primary			
CURNO	Type	SAE Class	Units
153	FIL	1000	G's
Max	Time	Min	Time
6.6	128.4	-41.7	70.7

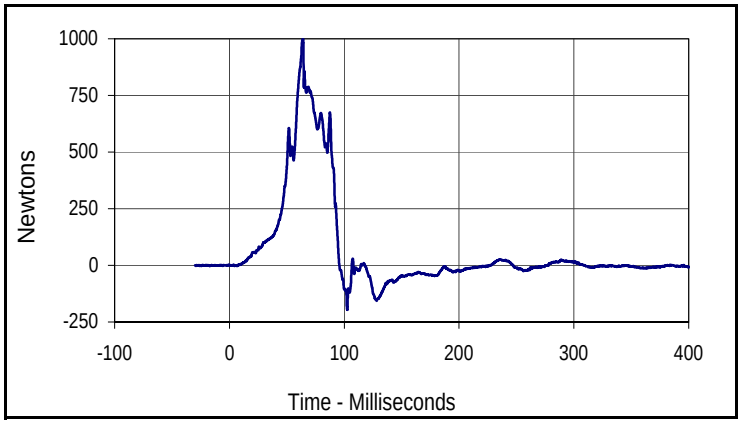


Curve Description			
LR Passenger Pelvis Y Primary			
CURNO	Type	SAE Class	Units
154	FIL	1000	G's
Max	Time	Min	Time
19.4	86.0	-2.5	43.8

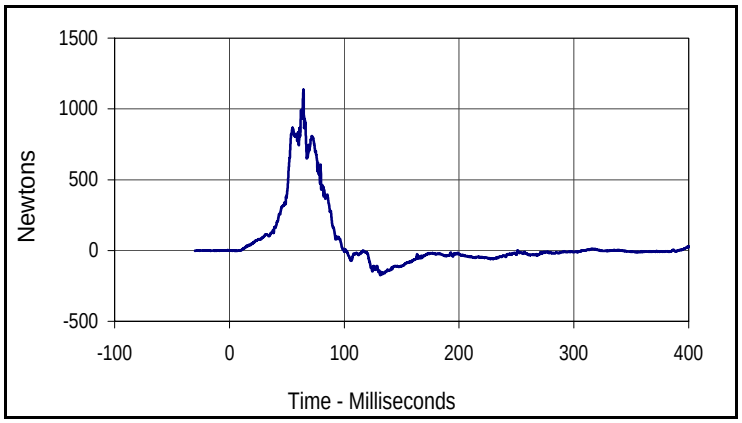


Curve Description			
LR Passenger Pelvis Z Primary			
CURNO	Type	SAE Class	Units
155	FIL	1000	G's
Max	Time	Min	Time
4.2	118.1	-21.2	74.0

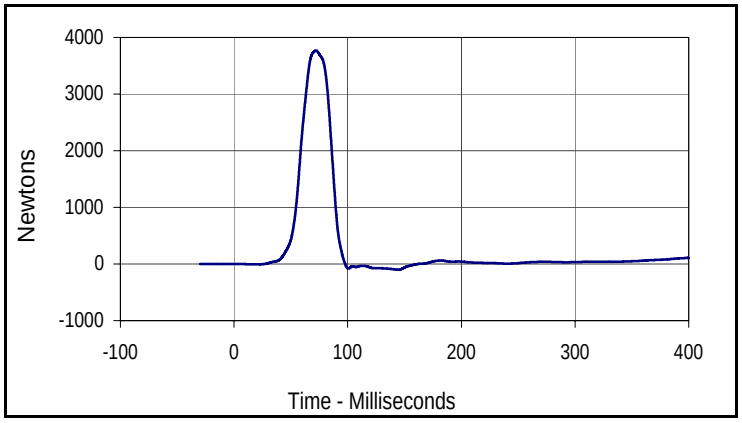
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



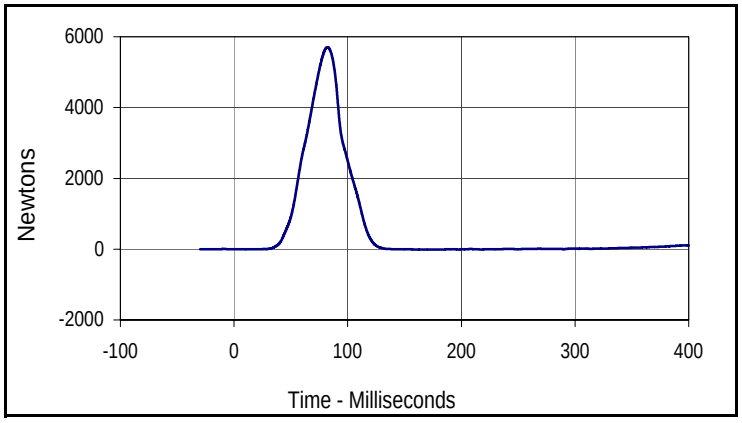
Curve Description			
LR Passenger Left Femur Force Z			
CURNO	Type	SAE Class	Units
156	FIL	600	Newtons
Max	Time	Min	Time
998.0	64.1	-196.2	102.6



Curve Description			
LR Passenger Right Femur Force Z			
CURNO	Type	SAE Class	Units
157	FIL	600	Newtons
Max	Time	Min	Time
1135.4	64.4	-174.0	131.3

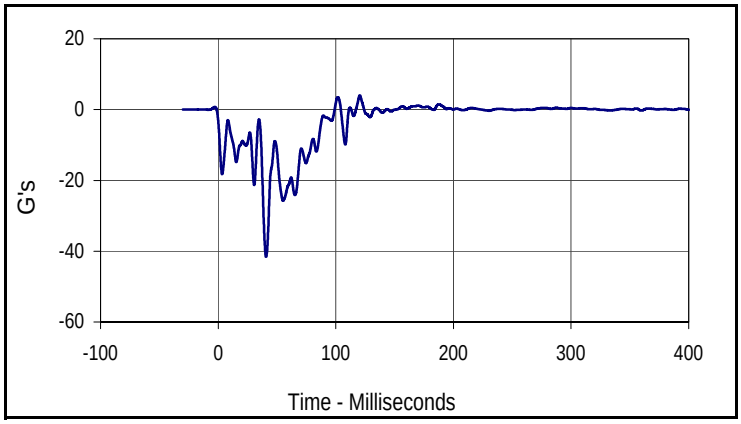


Curve Description			
LR Passenger Lap Belt Force			
CURNO	Type	SAE Class	Units
158	FIL	60	Newtons
Max	Time	Min	Time
3769.0	72.1	-100.5	144.6

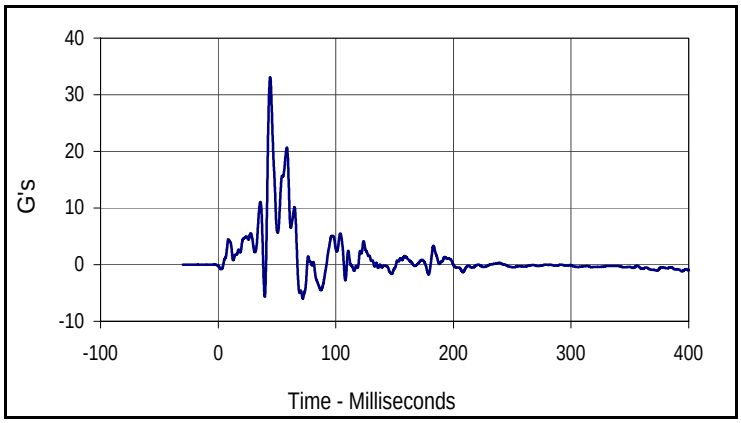


Curve Description			
LR Passenger Shoulder Belt Force			
CURNO	Type	SAE Class	Units
159	FIL	60	Newtons
Max	Time	Min	Time
5704.6	82.2	-13.0	170.4

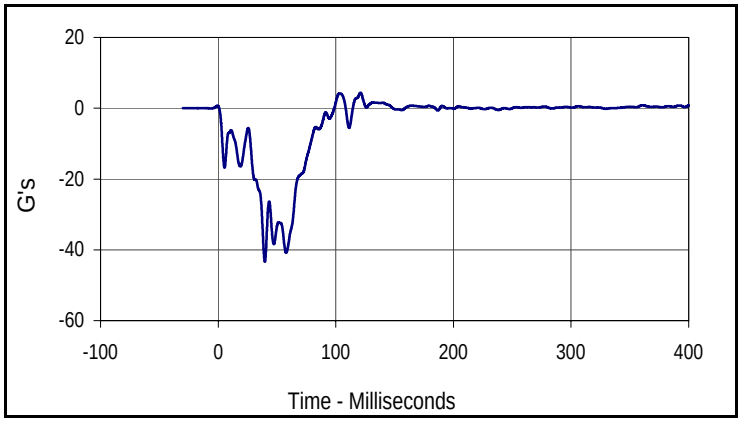
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



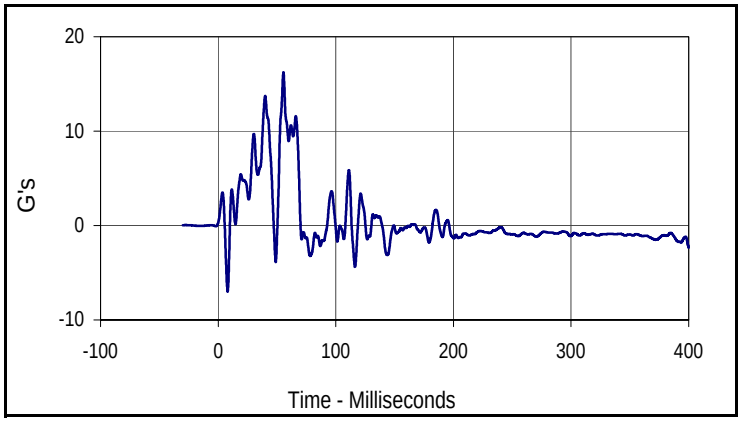
Curve Description			
Vehicle Left Rear Sill X			
CURNO	Type	SAE Class	Units
160	FIL	60	G's
Max	Time	Min	Time
4.0	120.4	-41.6	40.8



Curve Description			
Vehicle Left Rear Sill Y			
CURNO	Type	SAE Class	Units
161	FIL	60	G's
Max	Time	Min	Time
33.1	44.2	-6.0	72.0

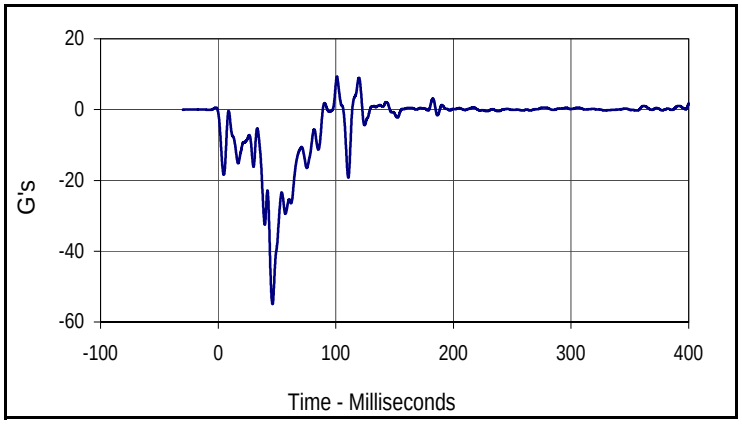


Curve Description			
Vehicle Right Rear Sill X			
CURNO	Type	SAE Class	Units
162	FIL	60	G's
Max	Time	Min	Time
4.4	121.0	-43.4	39.7

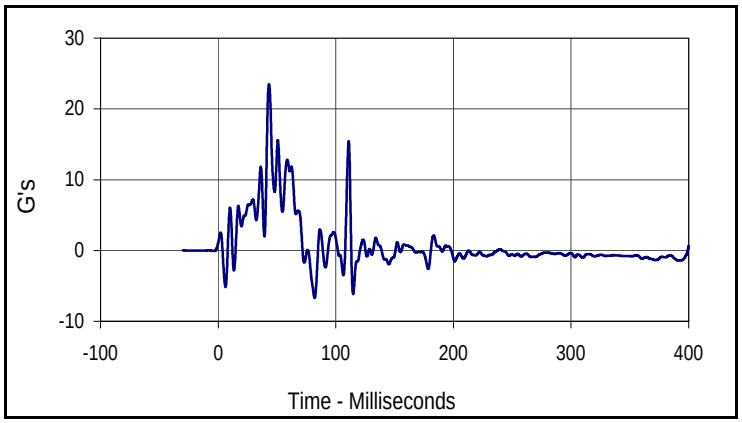


Curve Description			
Vehicle Right Rear Sill Y			
CURNO	Type	SAE Class	Units
163	FIL	60	G's
Max	Time	Min	Time
16.2	55.5	-7.0	8.1

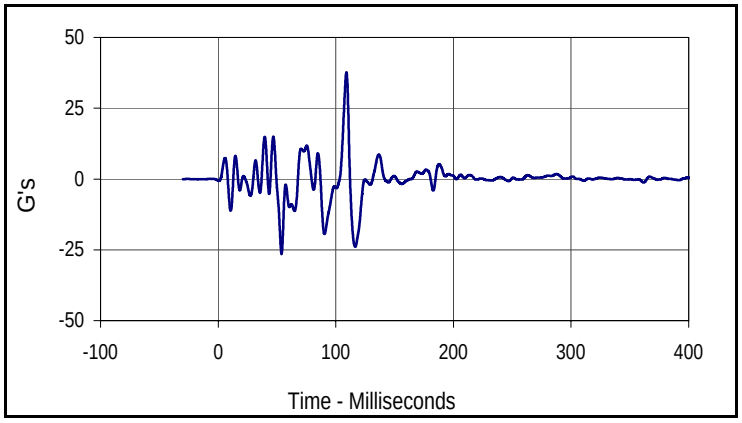
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



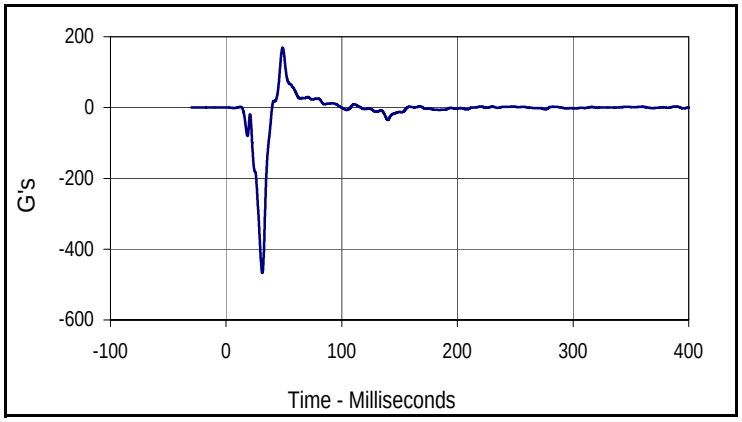
Curve Description			
Vehicle CG X			
CURNO	Type	SAE Class	Units
164	FIL	60	G's
Max	Time	Min	Time
9.3	101.0	-55.0	46.2



Curve Description			
Vehicle CG Y			
CURNO	Type	SAE Class	Units
165	FIL	60	G's
Max	Time	Min	Time
23.5	43.2	-6.7	82.0

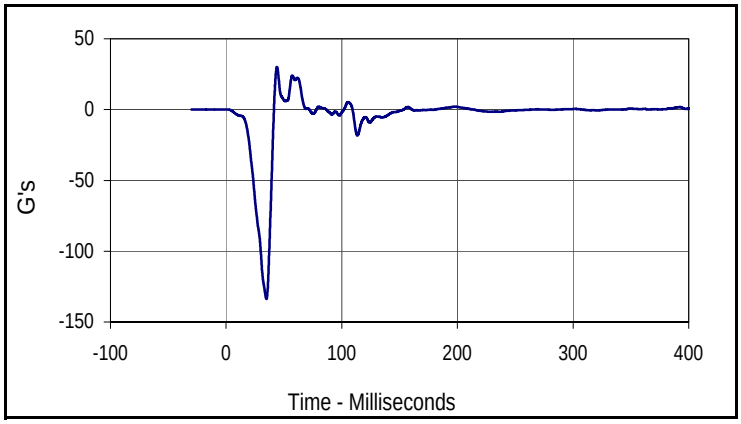


Curve Description			
Vehicle CG Z			
CURNO	Type	SAE Class	Units
166	FIL	60	G's
Max	Time	Min	Time
37.7	109.1	-26.4	53.9



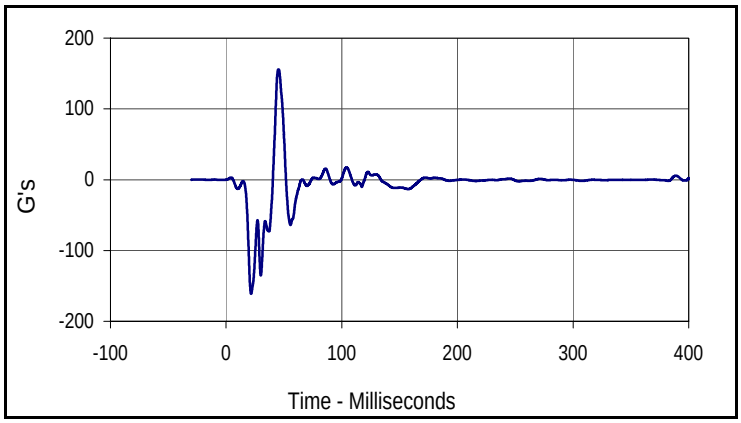
Curve Description			
Vehicle Engine Top X			
CURNO	Type	SAE Class	Units
167	FIL	60	G's
Max	Time	Min	Time
169.2	48.9	-467.3	31.3

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



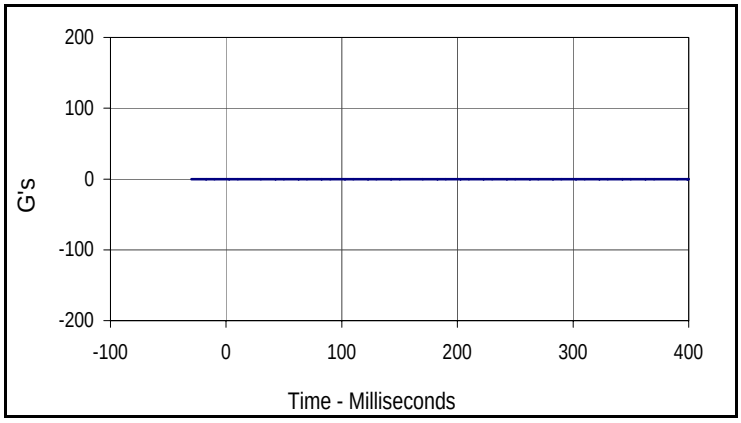
Curve Description			
Vehicle Engine Bottom X			
CURNO	Type	SAE Class	Units
168	FIL	60	G's
Max	Time	Min	Time
30.0	44.0	-133.7	34.9

* Channel failed at 576.2 msec



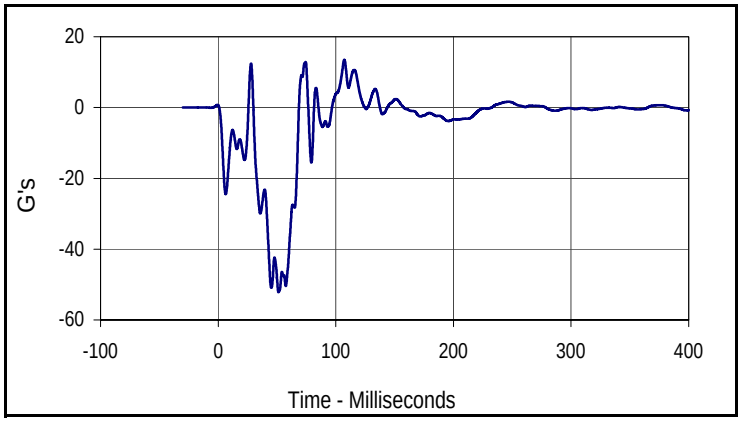
Curve Description			
Vehicle Left Brake Caliper X			
CURNO	Type	SAE Class	Units
169	FIL	60	G's
Max	Time	Min	Time
155.7	45.4	-161.1	21.6

* Channel failed at 925.5 msec



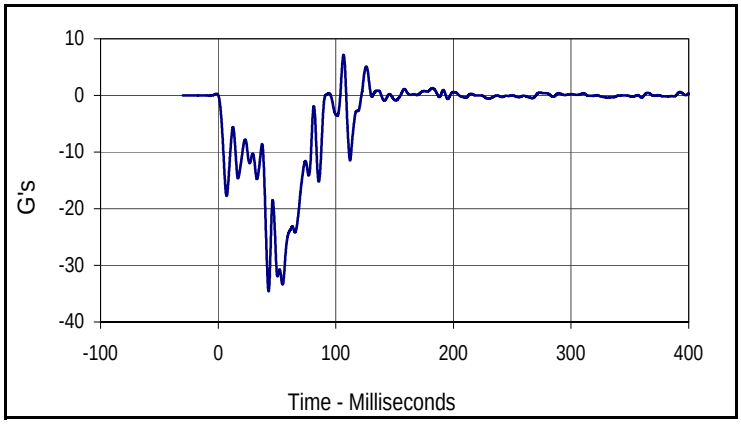
Curve Description			
Vehicle Right Brake Caliper X			
CURNO	Type	SAE Class	Units
170	FIL	60	G's
Max	Time	Min	Time
0.0	0.0	0.0	0.0

* Channel failed, no data

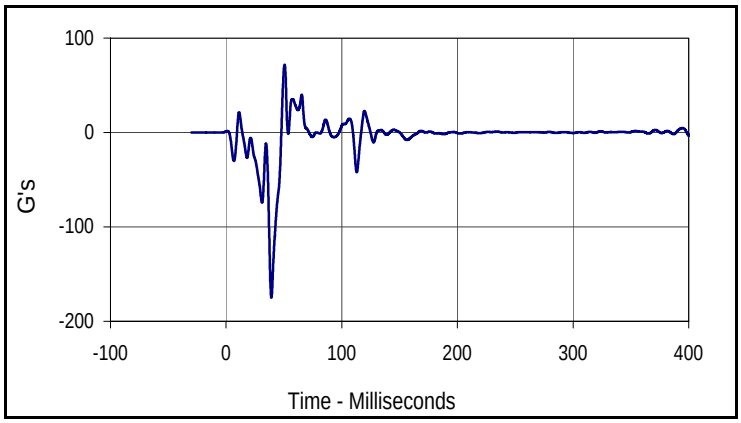


Curve Description			
Vehicle Instrument Panel X			
CURNO	Type	SAE Class	Units
171	FIL	60	G's
Max	Time	Min	Time
13.5	107.3	-52.1	51.3

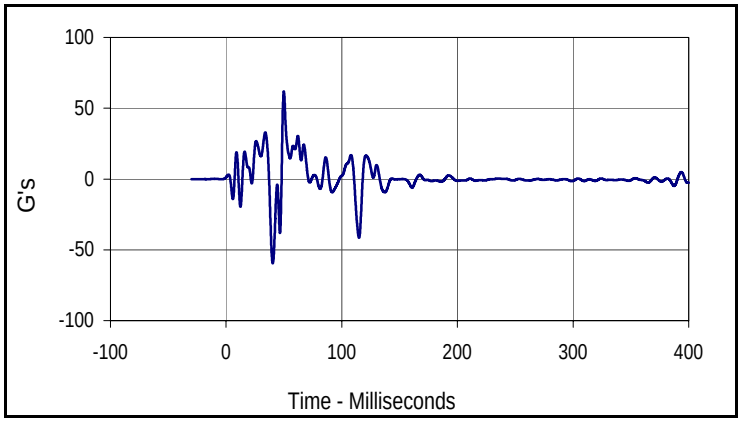
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



Curve Description			
Vehicle Left Driver Mid Seat Track X			
CURNO	Type	SAE Class	Units
172	FIL	60	G's
Max	Time	Min	Time
7.2	106.6	-34.6	42.9

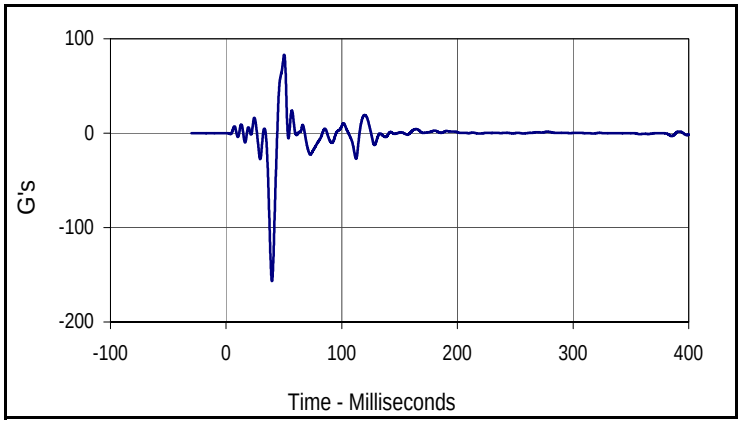


Curve Description			
Vehicle Accelerator Pedal X			
CURNO	Type	SAE Class	Units
173	FIL	60	G's
Max	Time	Min	Time
71.7	50.6	-175.0	39.1

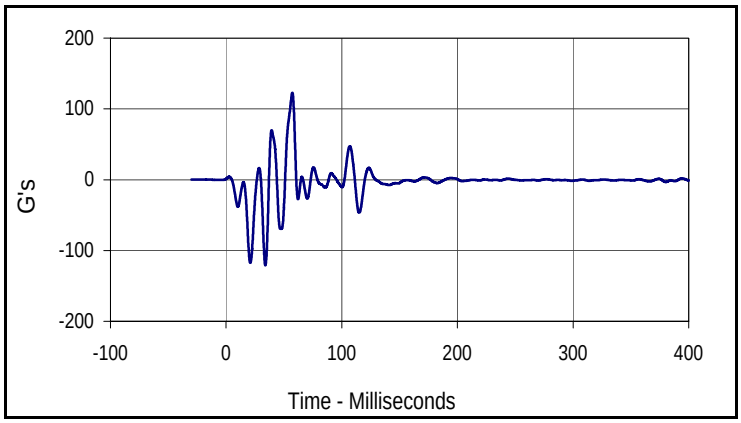


Curve Description			
Vehicle Accelerator Pedal Y			
CURNO	Type	SAE Class	Units
174	FIL	60	G's
Max	Time	Min	Time
61.8	49.9	-59.6	40.3

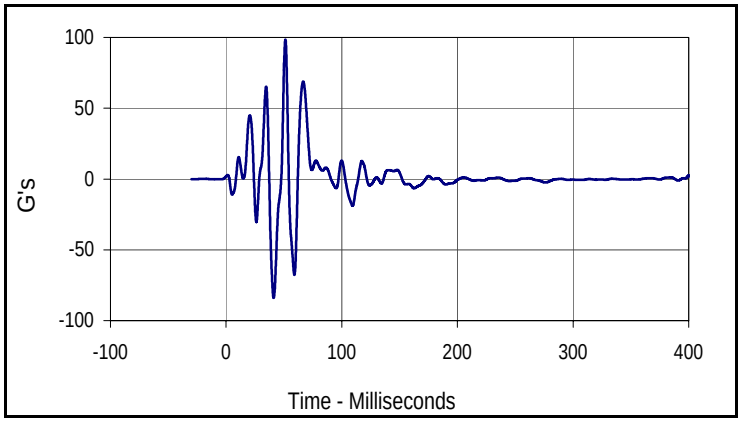
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



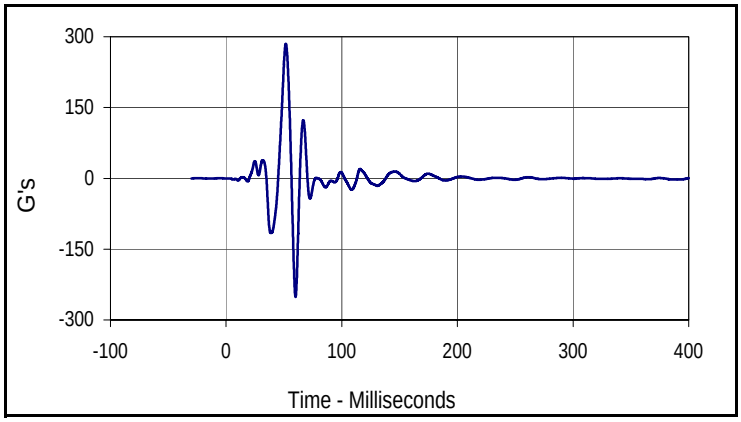
Curve Description			
Vehicle Accelerator Pedal Z			
CURNO	Type	SAE Class	Units
175	FIL	60	G's
Max	Time	Min	Time
83.0	50.3	-156.6	39.7



Curve Description			
Vehicle Brake Pedal X			
CURNO	Type	SAE Class	Units
176	FIL	60	G's
Max	Time	Min	Time
122.9	57.3	-120.8	34.0

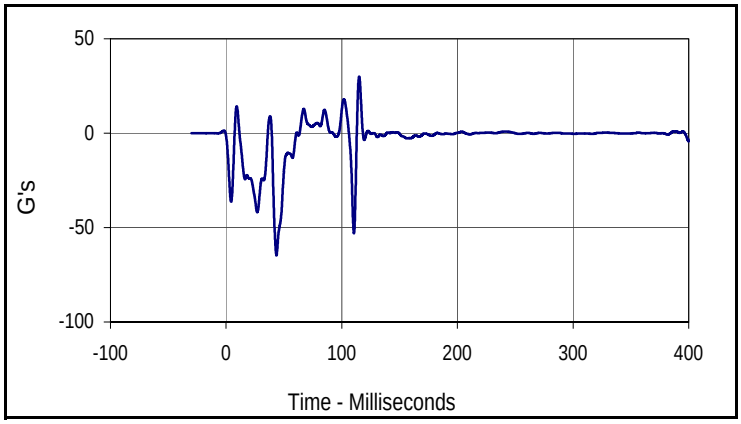


Curve Description			
Vehicle Brake Pedal Y			
CURNO	Type	SAE Class	Units
177	FIL	60	G's
Max	Time	Min	Time
98.4	51.3	-83.9	41.2

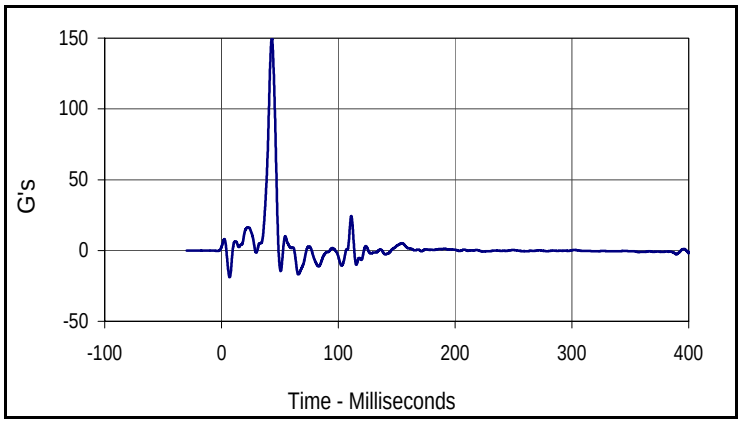


Curve Description			
Vehicle Brake Pedal Z			
CURNO	Type	SAE Class	Units
178	FIL	60	G's
Max	Time	Min	Time
284.9	51.7	-250.9	60.1

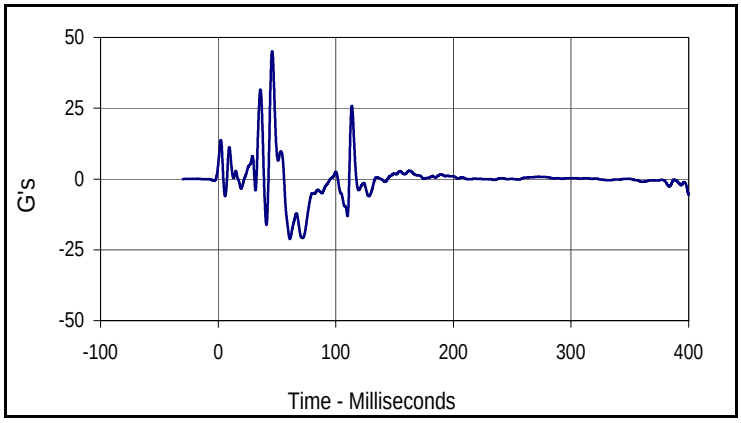
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



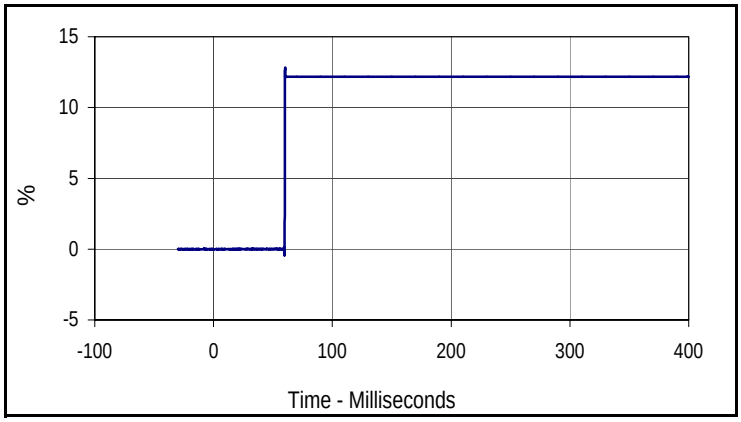
Curve Description			
Vehicle Foot Rest X			
CURNO	Type	SAE Class	Units
179	FIL	60	G's
Max	Time	Min	Time
29.9	115.1	-64.7	43.5



Curve Description			
Vehicle Foot Rest Y			
CURNO	Type	SAE Class	Units
180	FIL	60	G's
Max	Time	Min	Time
149.2	43.1	-18.9	7.0

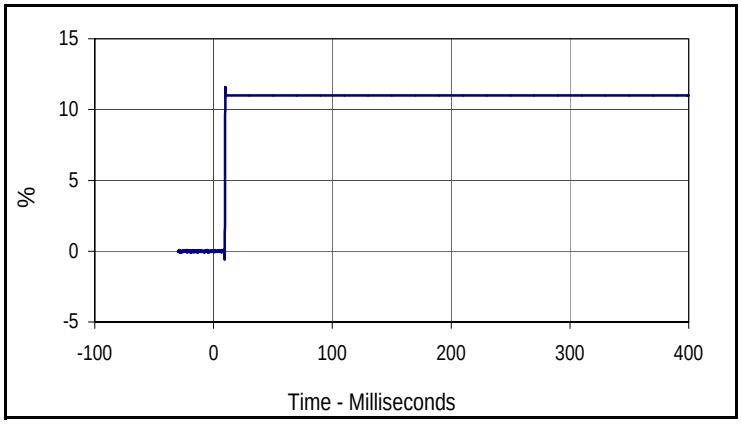


Curve Description			
Vehicle Foot Rest Z			
CURNO	Type	SAE Class	Units
181	FIL	60	G's
Max	Time	Min	Time
45.1	45.9	-21.2	61.0

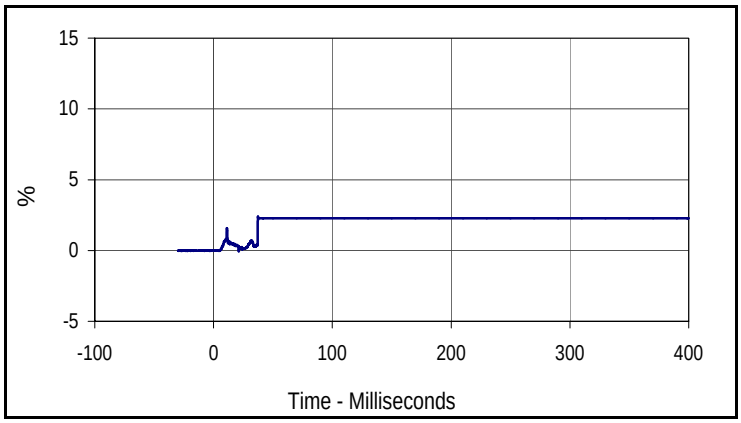


Curve Description			
Driver Foot Rest Contact			
CURNO	Type	SAE Class	Units
182	FIL	1000	%
Max	Time	Min	Time
12.8	60.2	-0.4	59.7

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09

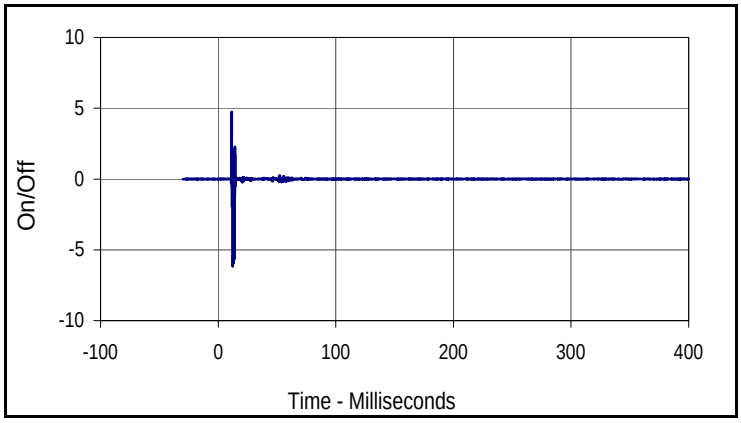


Curve Description			
Driver Accelerator Pedal Contact			
CURNO	Type	SAE Class	Units
183	FIL	1000	%
Max	Time	Min	Time
11.6	9.9	-0.6	9.4

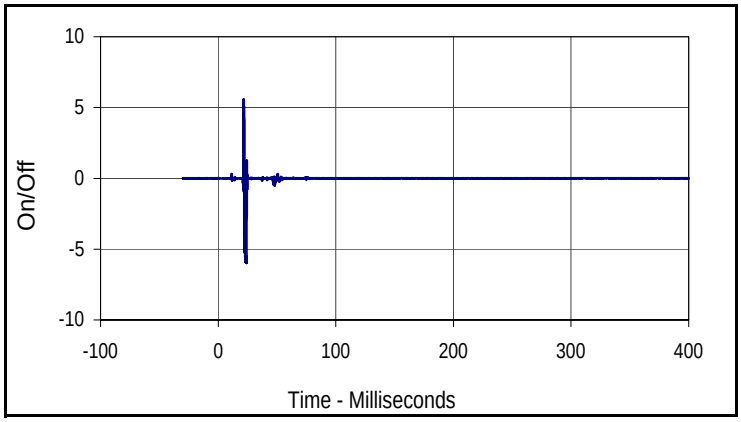


Curve Description			
Driver Knee Contact			
CURNO	Type	SAE Class	Units
184	FIL	1000	%
Max	Time	Min	Time
2.4	37.4	-0.1	21.2

* Channel has noise spikes before actual contact

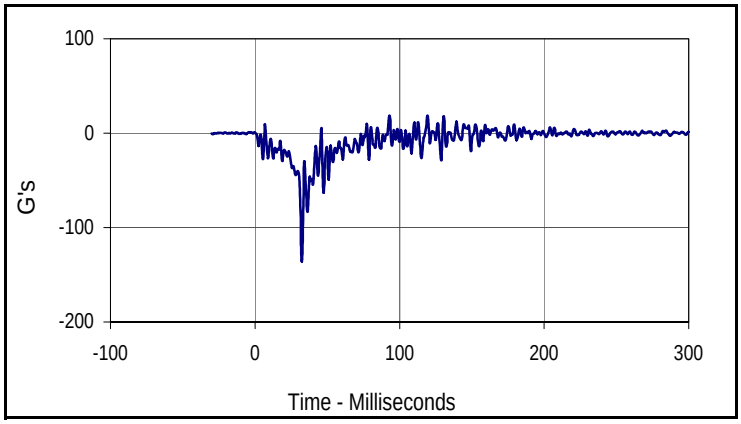


Curve Description			
Driver Airbag Squib Stage 1			
CURNO	Type	SAE Class	Units
185	FIL	1000	On/Off
Max	Time	Min	Time
4.7	11.5	-6.1	12.3

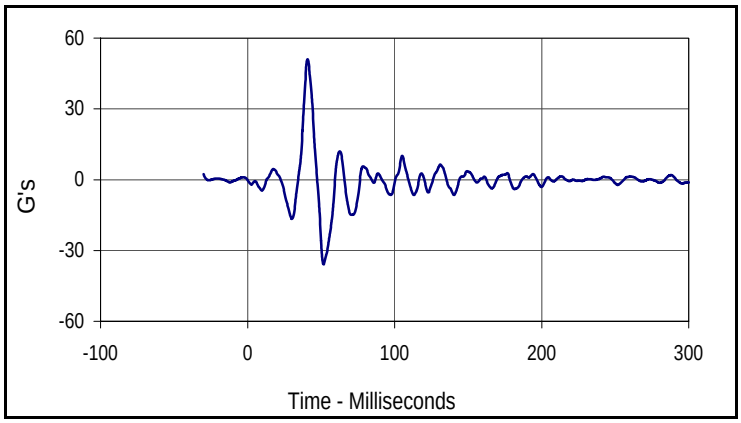


Curve Description			
Driver Airbag Squib Stage 2			
CURNO	Type	SAE Class	Units
186	FIL	1000	On/Off
Max	Time	Min	Time
5.5	21.5	-5.9	24.0

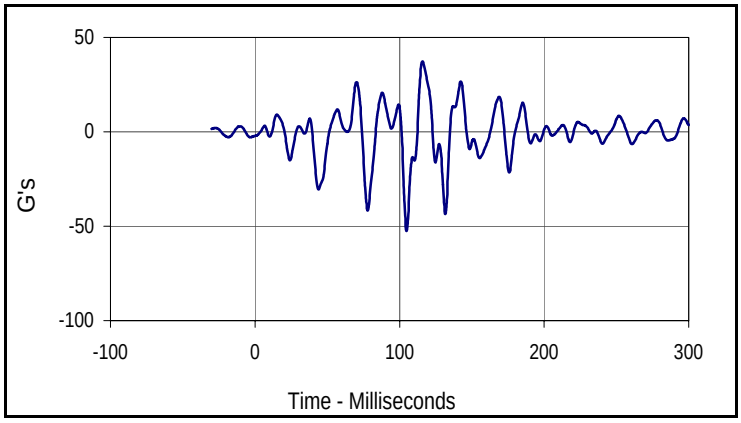
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	Test Date:	11/17/09
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Project No.:	R70208



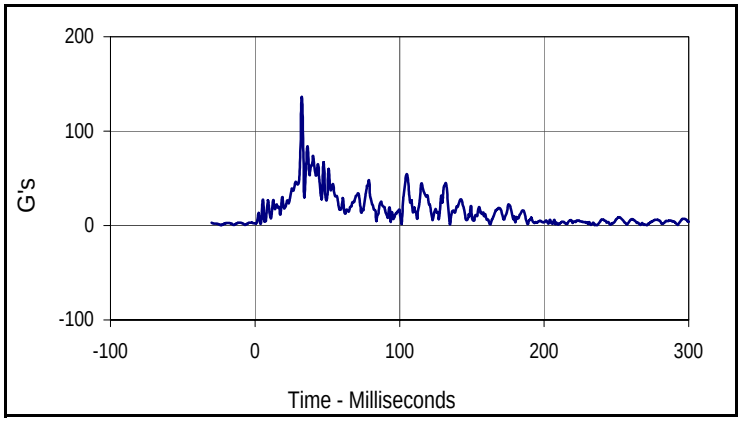
Curve Description			
MDB CG X			
CURNO	Type	SAE Class	Units
187	FIL	60	G's
Max	Time	Min	Time
18.8	93.0	-136.0	32.4



Curve Description			
MDB CG Y			
CURNO	Type	SAE Class	Units
188	FIL	60	G's
Max	Time	Min	Time
51.0	40.8	-35.9	51.6

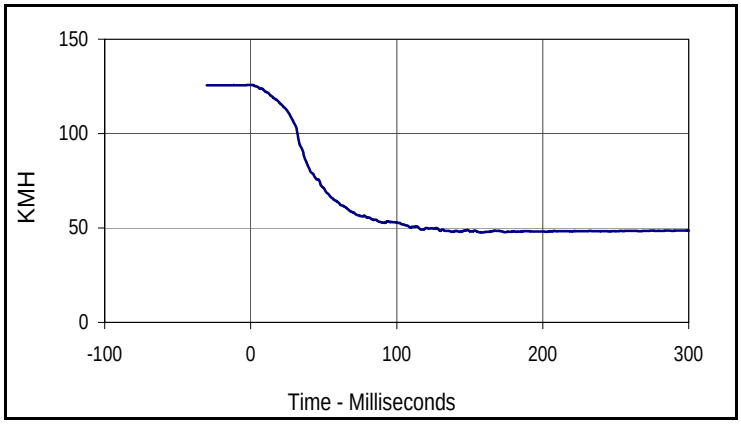


Curve Description			
MDB CG Z			
CURNO	Type	SAE Class	Units
189	FIL	60	G's
Max	Time	Min	Time
37.3	115.8	-52.6	104.8

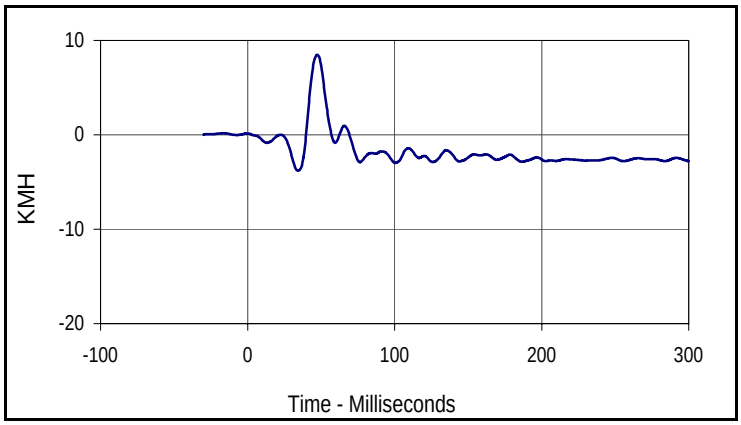


Curve Description			
MDB CG Resultant			
CURNO	Type	SAE Class	Units
187	RES	60	G's
Max	Time	Min	Time
136.4	32.4	0.4	271.0

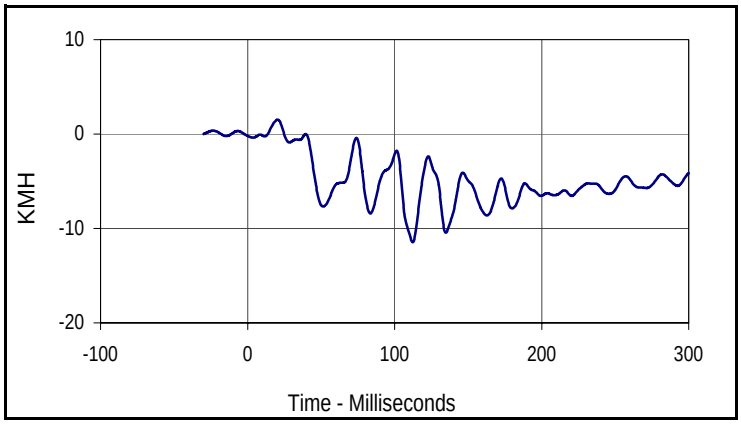
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	Test Date:	11/17/09
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Project No.:	R70208



Curve Description			
MDB CG X Velocity			
CURNO	Type	SAE Class	Units
187	IN1	180	KMH
Max	Time	Min	Time
125.7	0.2	47.6	158.6

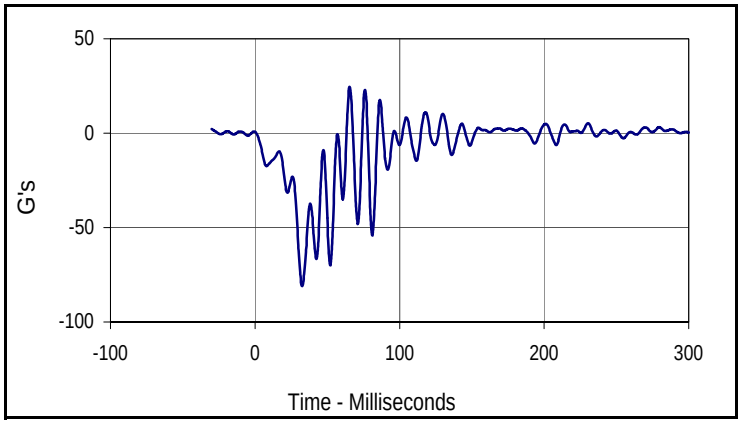


Curve Description			
MDB CG Y Velocity			
CURNO	Type	SAE Class	Units
188	IN1	180	KMH
Max	Time	Min	Time
8.5	47.4	-3.8	34.4

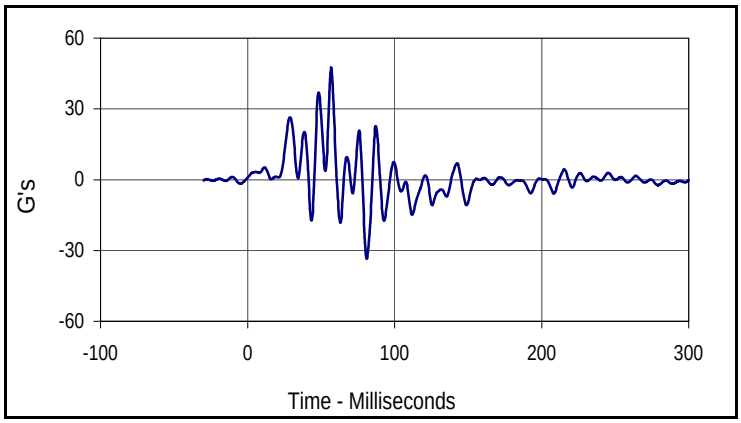


Curve Description			
MDB CG Z Velocity			
CURNO	Type	SAE Class	Units
189	IN1	180	KMH
Max	Time	Min	Time
1.5	20.4	-11.4	112.4

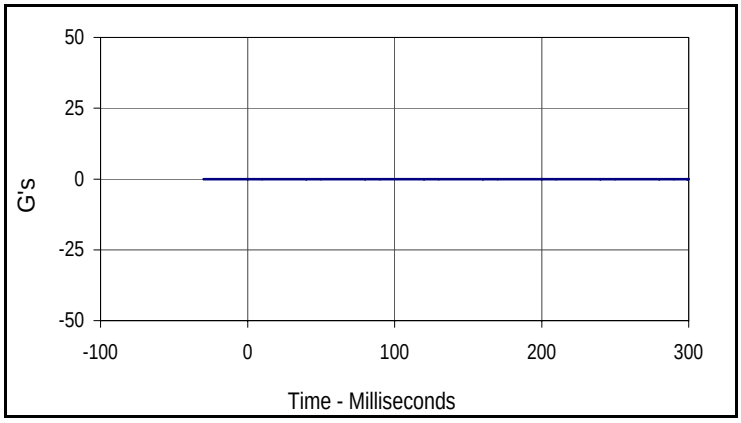
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	Test Date:	11/17/09
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Project No.:	R70208



Curve Description			
MDB Rear X			
CURNO	Type	SAE Class	Units
190	FIL	60	G's
Max	Time	Min	Time
24.5	65.4	-81.0	32.6

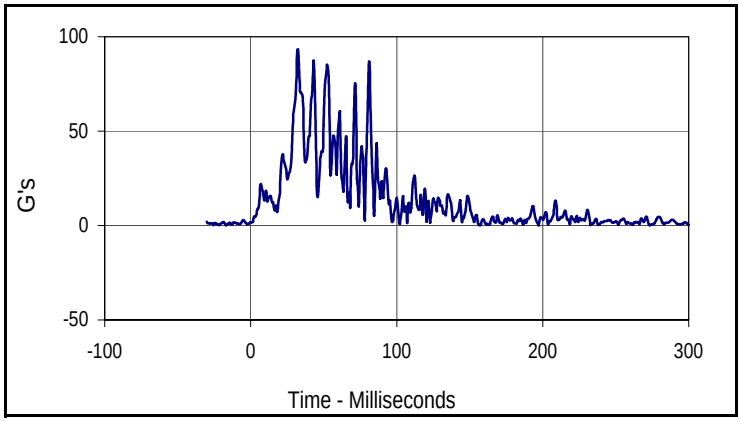


Curve Description			
MDB Rear Y			
CURNO	Type	SAE Class	Units
191	FIL	60	G's
Max	Time	Min	Time
47.6	56.8	-33.5	81.0



Curve Description			
MDB Rear Z			
CURNO	Type	SAE Class	Units
192	FIL	60	G's
Max	Time	Min	Time
0.0	0.0	0.0	0.0

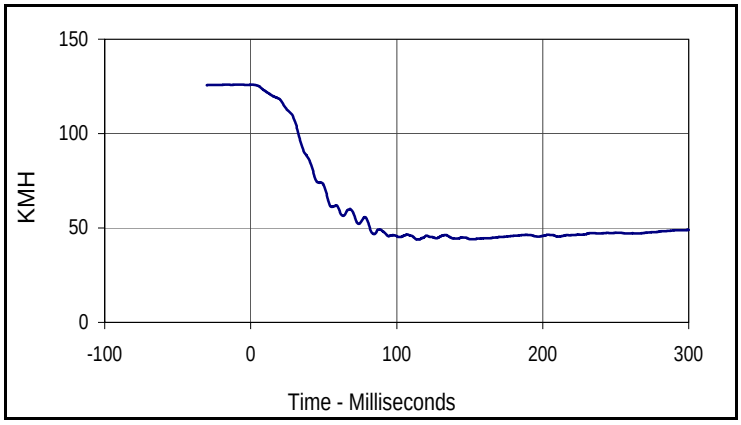
* Channel failed, no data



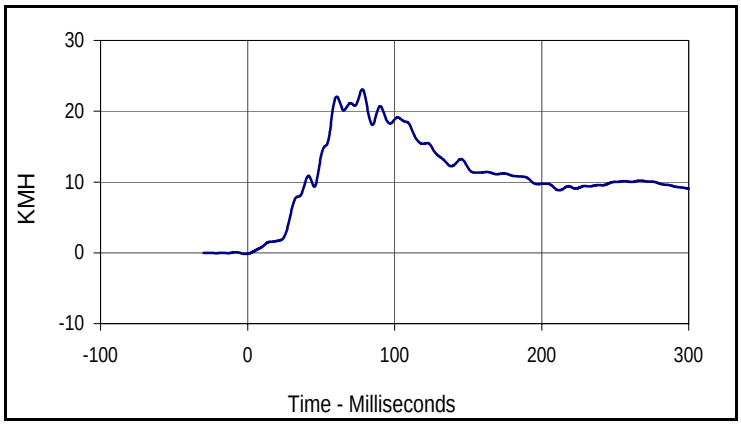
Curve Description			
MDB Rear Resultant			
CURNO	Type	SAE Class	Units
190	RES	60	G's
Max	Time	Min	Time
93.5	32.2	0.0	197.2

* X-Y Resultant only

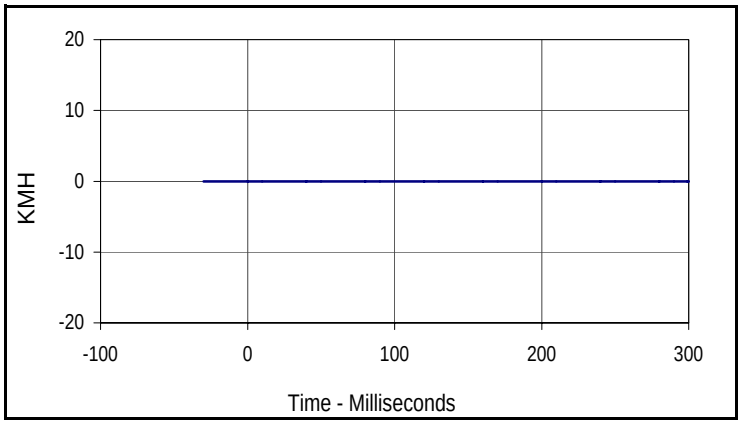
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	Test Date:	11/17/09
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Project No.:	R70208



Curve Description			
MDB Rear X Velocity			
CURNO	Type	SAE Class	Units
190	IN1	180	KMH
Max	Time	Min	Time
125.9	1.4	43.9	114.6

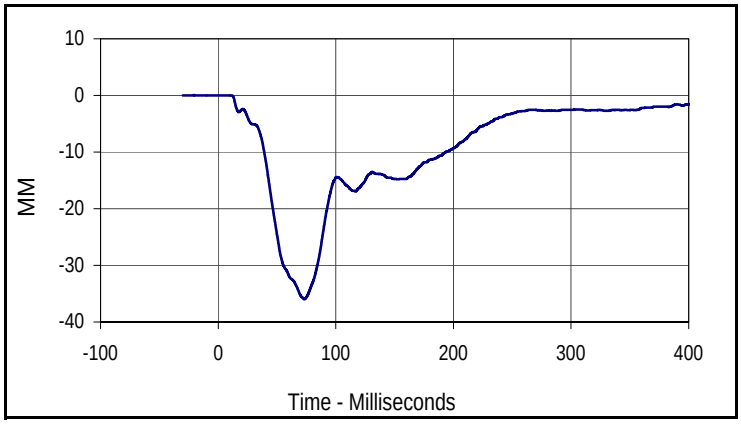


Curve Description			
MDB Rear Y Velocity			
CURNO	Type	SAE Class	Units
191	IN1	180	KMH
Max	Time	Min	Time
23.1	78.0	-0.1	0.0

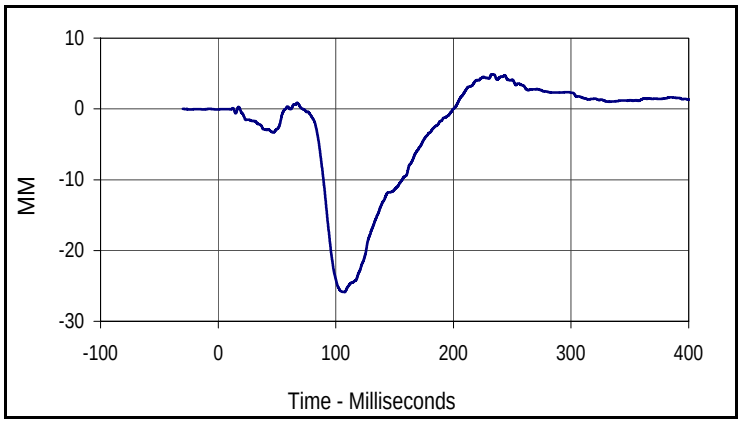


Curve Description			
MDB Rear Z Velocity			
CURNO	Type	SAE Class	Units
192	IN1	180	KMH
Max	Time	Min	Time
0.0	0.0	0.0	0.0

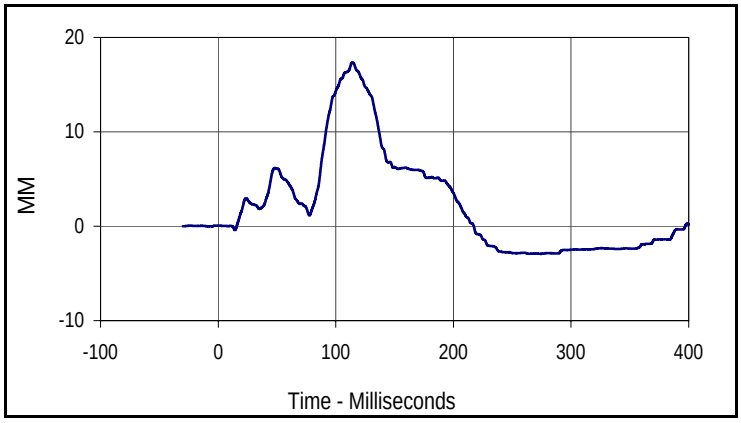
* Channel failed, no data



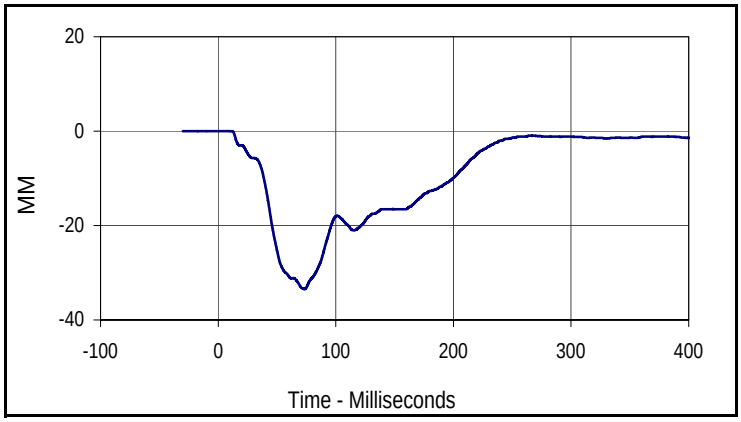
Curve Description			
Driver THOR CRUX Upper Right X			
CURNO	Type	SAE Class	Units
193	CALC	N/A	MM
Max	Time	Min	Time
0.0	0.0	-36.0	73.2



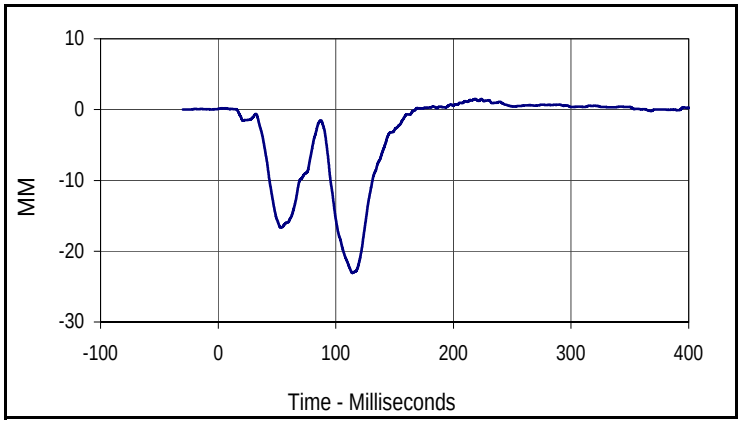
Curve Description			
Driver THOR CRUX Upper Right Y			
CURNO	Type	SAE Class	Units
194	CALC	N/A	MM
Max	Time	Min	Time
4.9	232.6	-25.9	107.5



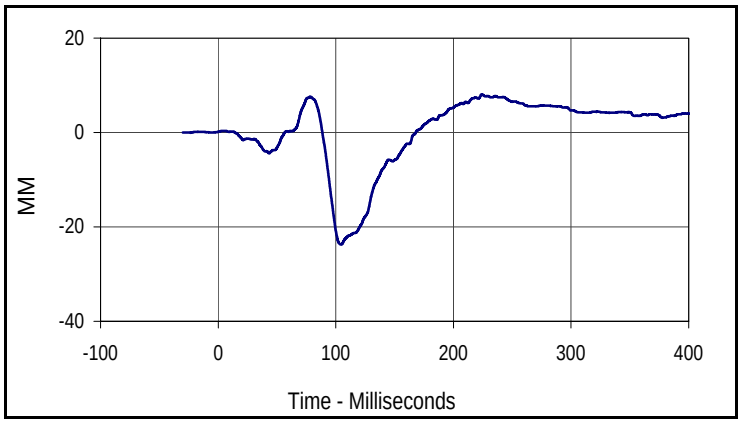
Curve Description			
Driver THOR CRUX Upper Right Z			
CURNO	Type	SAE Class	Units
195	CALC	N/A	MM
Max	Time	Min	Time
17.3	114.1	-2.9	274.4



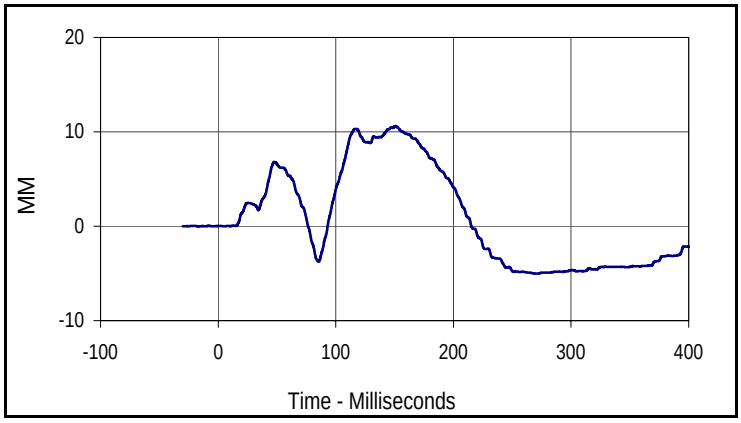
Curve Description			
Driver THOR CRUX Upper Right D			
CURNO	Type	SAE Class	Units
196	CALC	N/A	MM
Max	Time	Min	Time
0.0	0.9	-33.5	73.2



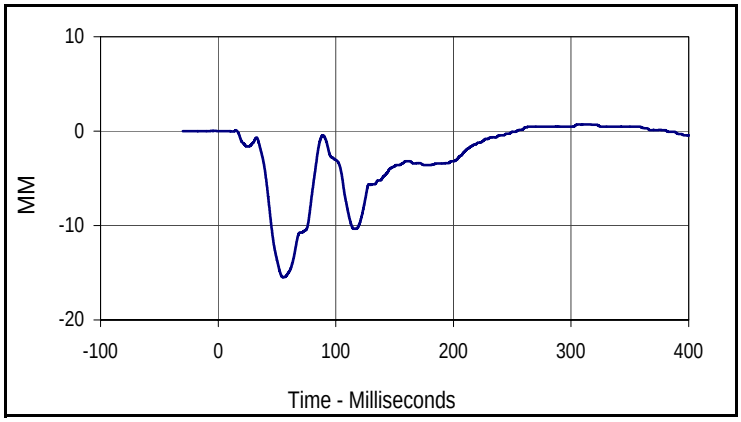
Curve Description			
Driver THOR CRUX Lower Right X			
CURNO	Type	SAE Class	Units
197	CALC	N/A	MM
Max	Time	Min	Time
1.5	218.2	-23.1	114.1



Curve Description			
Driver THOR CRUX Lower Right Y			
CURNO	Type	SAE Class	Units
198	CALC	N/A	MM
Max	Time	Min	Time
8.0	224.2	-23.7	104.4

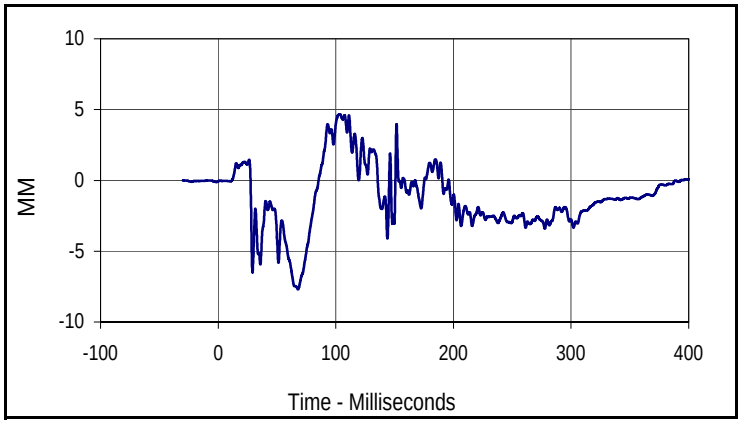


Curve Description			
Driver THOR CRUX Lower Right Z			
CURNO	Type	SAE Class	Units
199	CALC	N/A	MM
Max	Time	Min	Time
10.6	150.3	-5.0	269.1

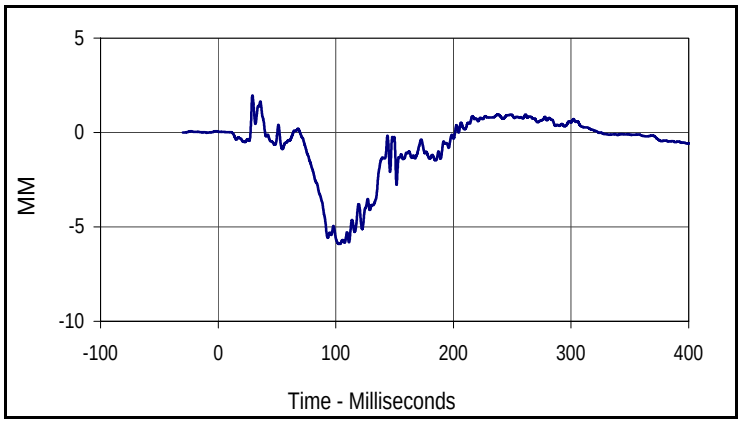


Curve Description			
Driver THOR CRUX Lower Right D			
CURNO	Type	SAE Class	Units
200	CALC	N/A	MM
Max	Time	Min	Time
0.7	311.4	-15.5	55.1

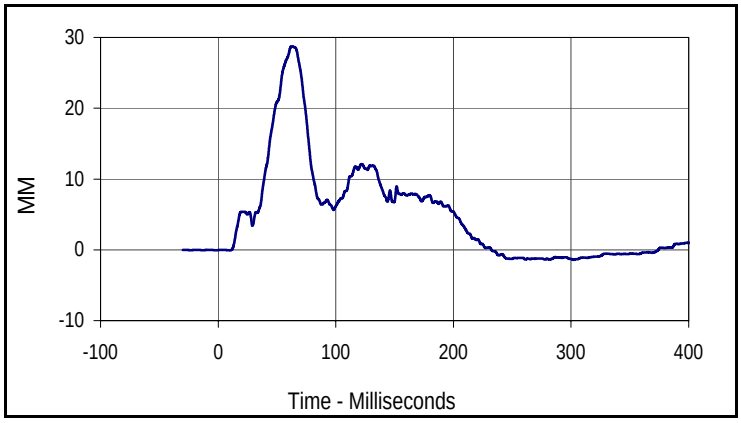
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



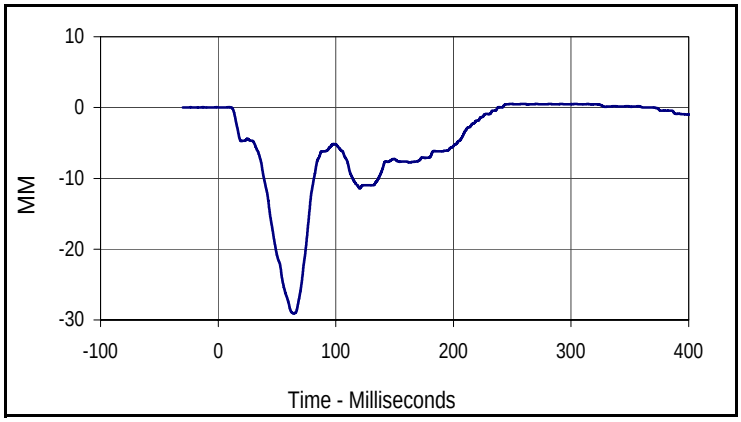
Curve Description			
Driver THOR CRUX Upper Left X			
CURNO	Type	SAE Class	Units
201	CALC	N/A	MM
Max	Time	Min	Time
4.7	103.4	-7.7	67.7



Curve Description			
Driver THOR CRUX Upper Left Y			
CURNO	Type	SAE Class	Units
202	CALC	N/A	MM
Max	Time	Min	Time
2.0	29.1	-5.9	102.3

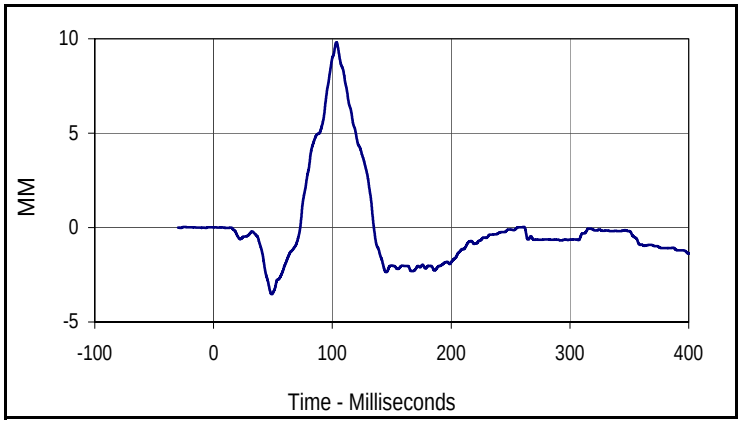


Curve Description			
Driver THOR CRUX Upper Left Z			
CURNO	Type	SAE Class	Units
203	CALC	N/A	MM
Max	Time	Min	Time
28.7	62.3	-1.4	302.0

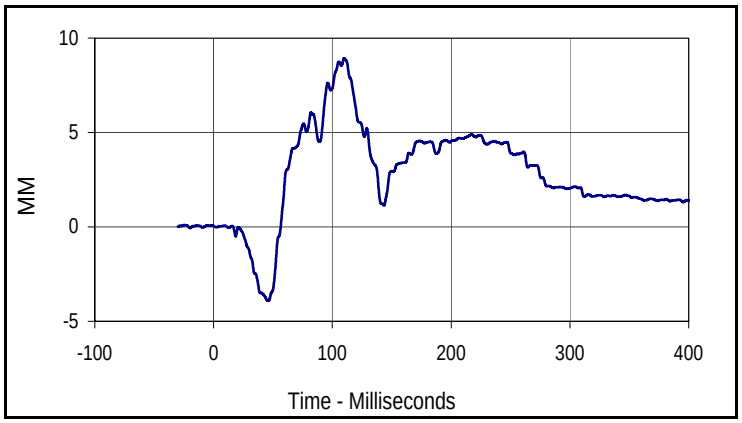


Curve Description			
Driver THOR CRUX Upper Left D			
CURNO	Type	SAE Class	Units
204	CALC	N/A	MM
Max	Time	Min	Time
0.5	259.4	-29.1	64.1

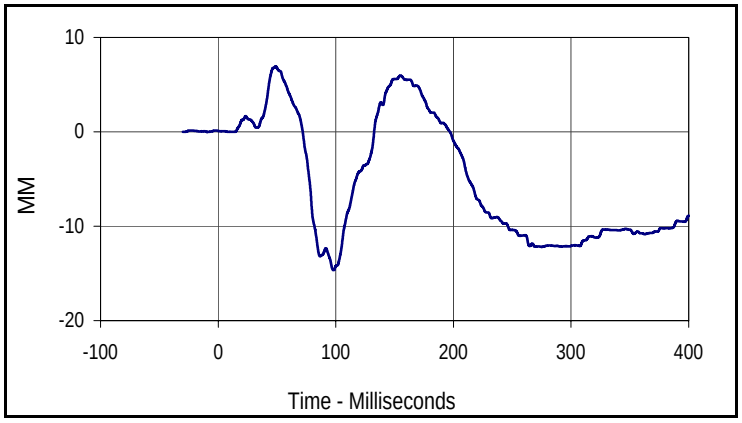
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



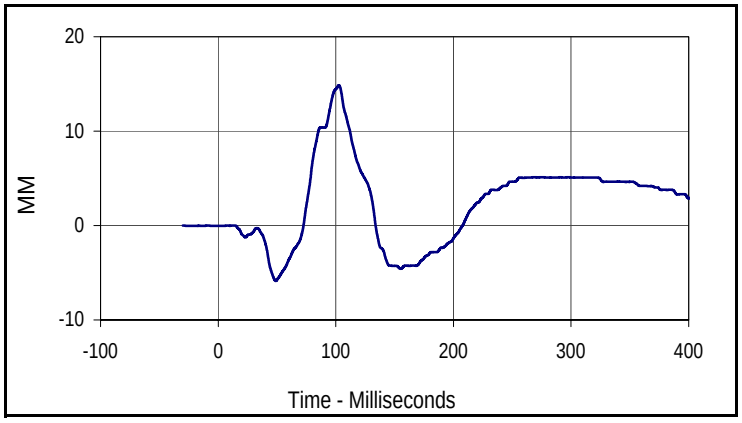
Curve Description			
Driver THOR CRUX Lower Left X			
CURNO	Type	SAE Class	Units
205	CALC	N/A	MM
Max	Time	Min	Time
9.8	103.4	-3.5	48.8



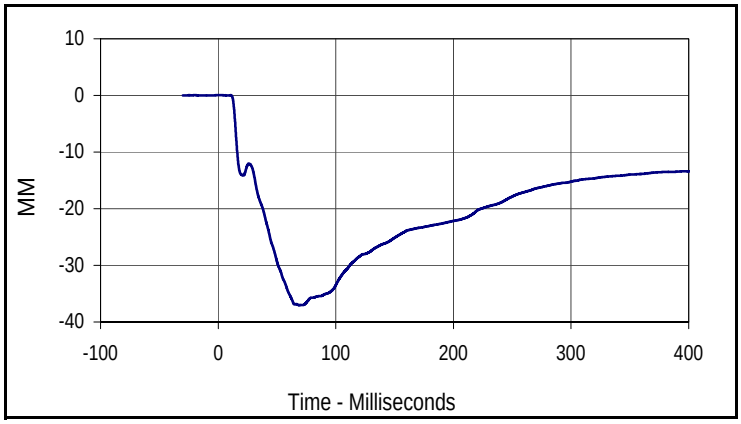
Curve Description			
Driver THOR CRUX Lower Left Y			
CURNO	Type	SAE Class	Units
206	CALC	N/A	MM
Max	Time	Min	Time
8.9	109.8	-3.9	45.5



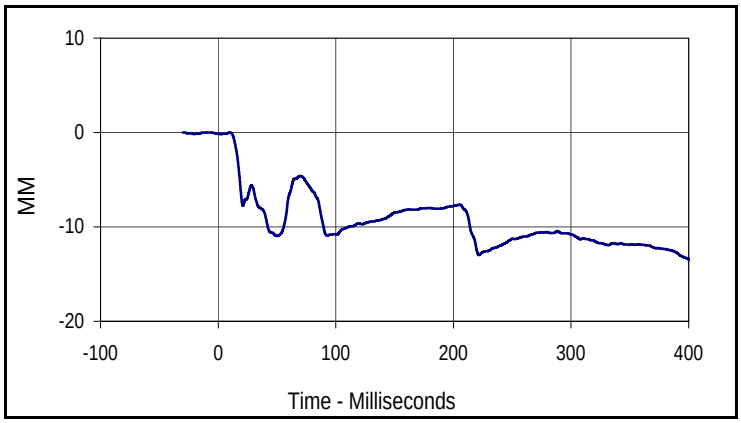
Curve Description			
Driver THOR CRUX Lower Left Z			
CURNO	Type	SAE Class	Units
207	CALC	N/A	MM
Max	Time	Min	Time
6.9	48.8	-14.7	98.0



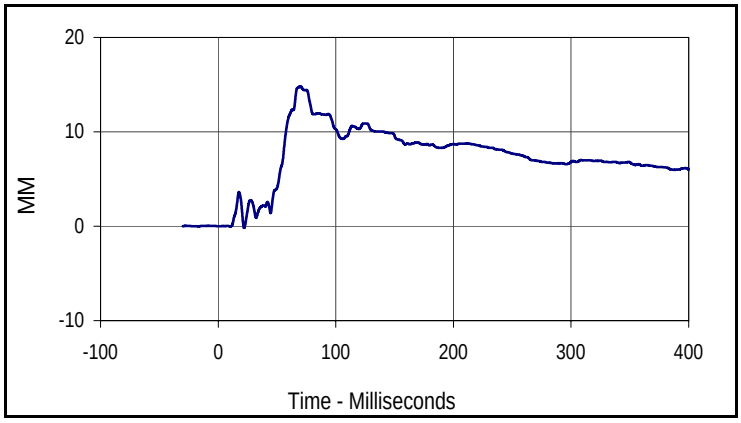
Curve Description			
Driver THOR CRUX Lower Left D			
CURNO	Type	SAE Class	Units
208	CALC	N/A	MM
Max	Time	Min	Time
14.9	102.6	-5.9	48.8



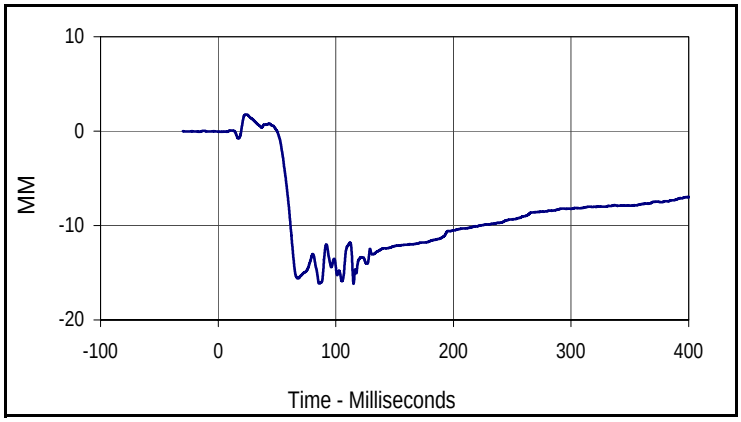
Curve Description			
Driver Right Lower Abdomen X			
CURNO	Type	SAE Class	Units
209	CALC	N/A	MM
Max	Time	Min	Time
0.0	0.0	-37.0	68.7



Curve Description			
Driver Right Lower Abdomen Y			
CURNO	Type	SAE Class	Units
210	CALC	N/A	MM
Max	Time	Min	Time
0.0	9.1	-13.4	400.0

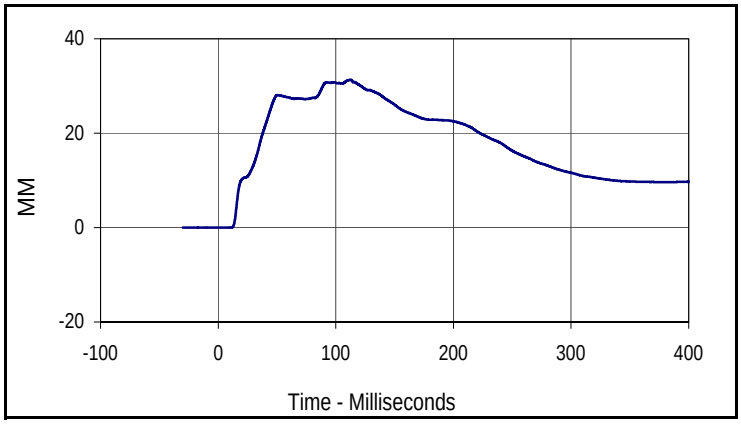


Curve Description			
Driver Right Lower Abdomen Z			
CURNO	Type	SAE Class	Units
211	CALC	N/A	MM
Max	Time	Min	Time
14.8	69.6	-0.2	22.1

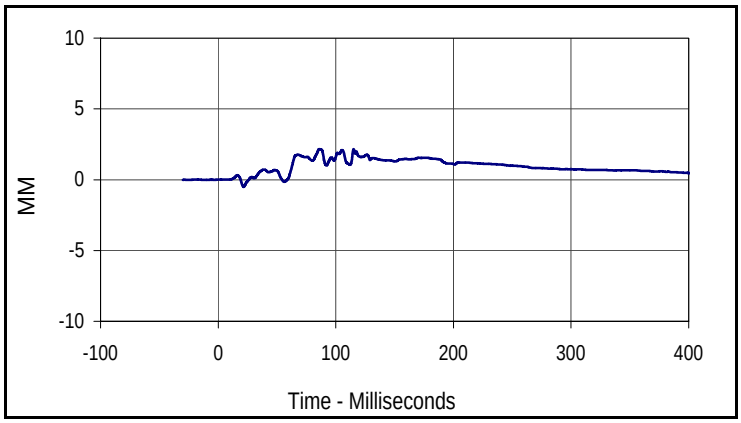


Curve Description			
Driver Left Lower Abdomen X			
CURNO	Type	SAE Class	Units
212	CALC	N/A	MM
Max	Time	Min	Time
1.8	23.7	-16.2	115.1

Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09

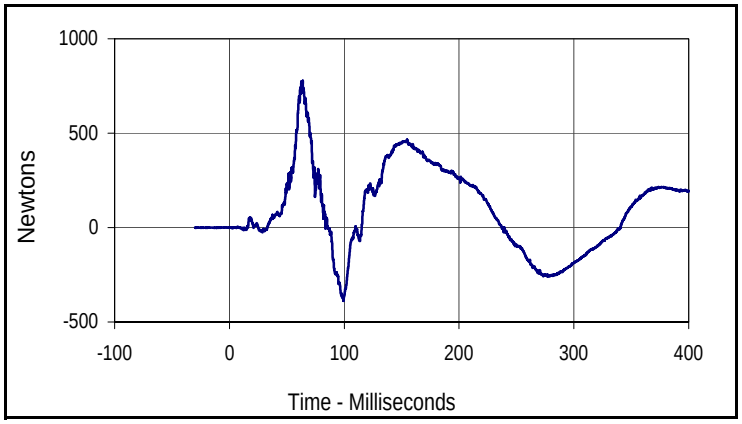


Curve Description			
Driver Left Lower Abdomen Y			
CURNO	Type	SAE Class	Units
213	CALC	N/A	MM
Max	Time	Min	Time
31.3	112.2	0.0	1.5

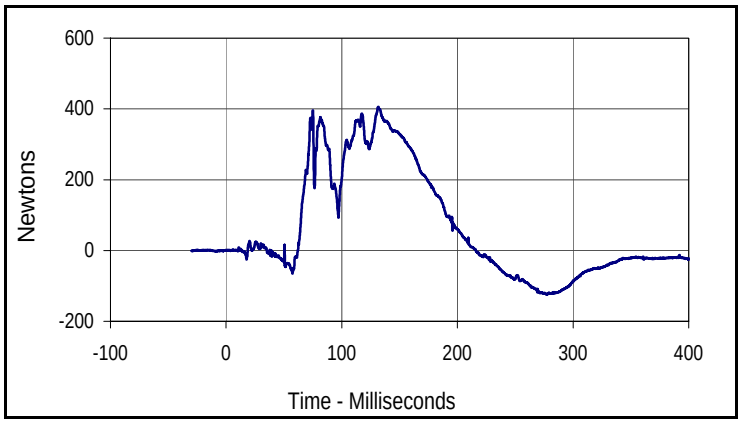


Curve Description			
Driver Left Lower Abdomen Z			
CURNO	Type	SAE Class	Units
214	CALC	N/A	MM
Max	Time	Min	Time
2.2	85.8	-0.5	21.5

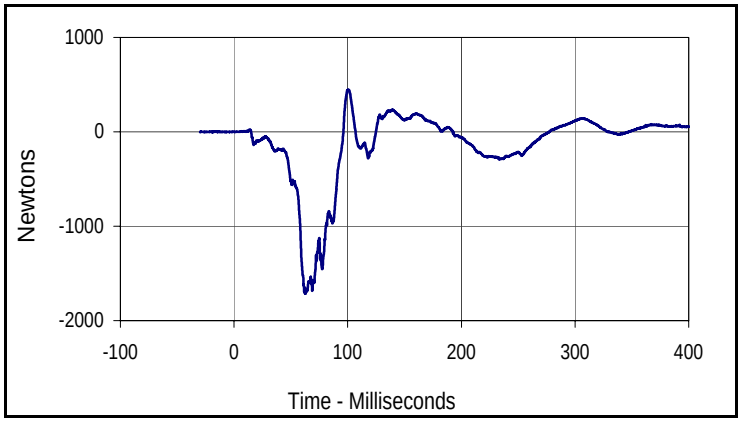
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



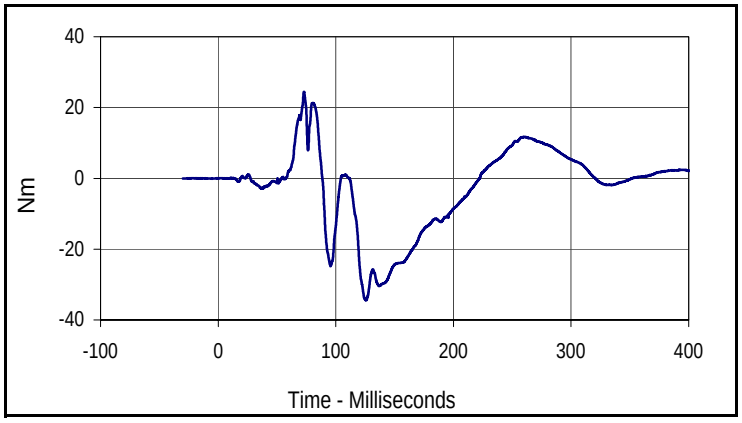
Curve Description			
Driver Upper Neck Force X			
CURNO	Type	SAE Class	Units
215	CALC	N/A	Newtons
Max	Time	Min	Time
778.0	63.9	-387.9	99.3



Curve Description			
Driver Upper Neck Force Y			
CURNO	Type	SAE Class	Units
216	CALC	N/A	Newtons
Max	Time	Min	Time
405.9	131.6	-124.6	277.5

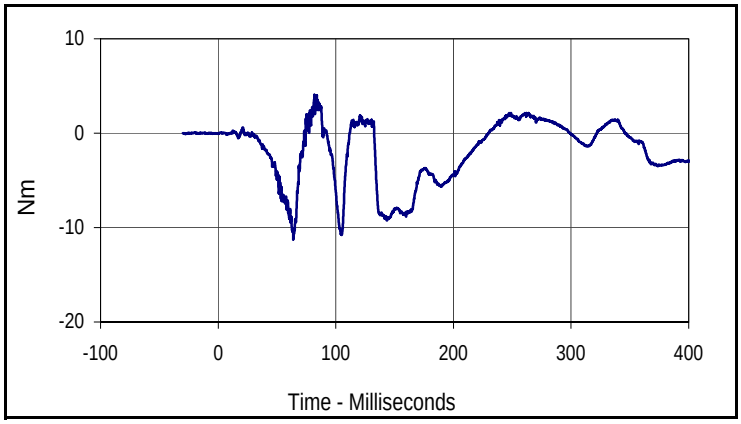


Curve Description			
Driver Upper Neck Force Z			
CURNO	Type	SAE Class	Units
217	CALC	N/A	Newtons
Max	Time	Min	Time
447.4	100.5	-1716.8	62.8

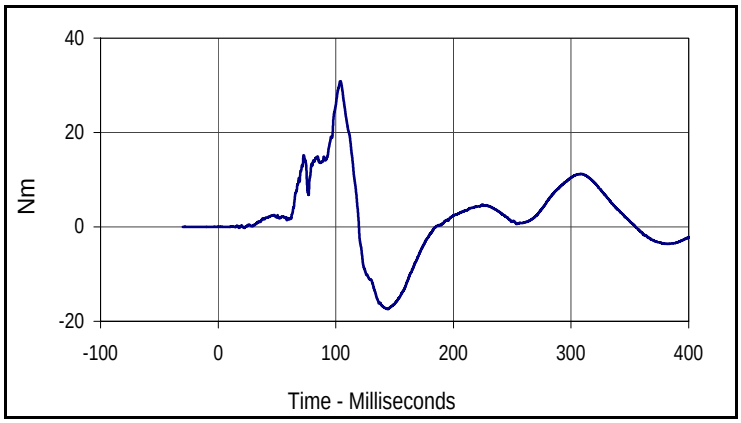


Curve Description			
Driver Upper Neck Moment X			
CURNO	Type	SAE Class	Units
218	CALC	N/A	Nm
Max	Time	Min	Time
24.5	73.0	-34.5	125.7

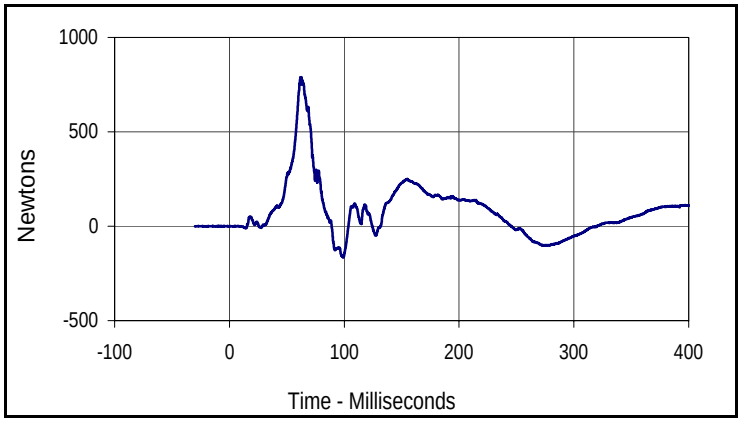
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



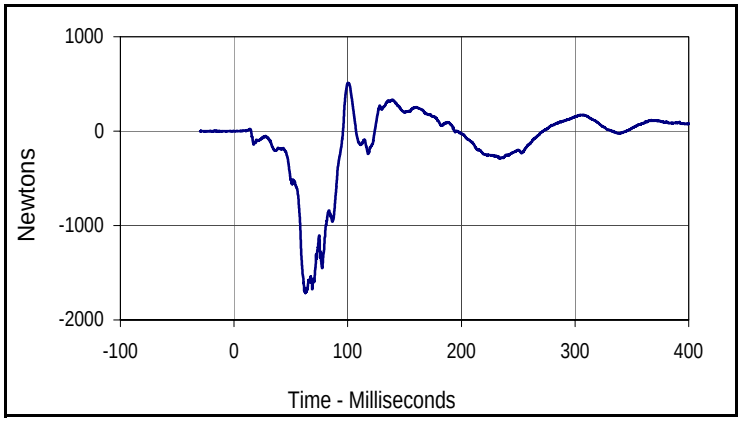
Curve Description			
Driver Upper Neck Moment Y			
CURNO	Type	SAE Class	Units
219	CALC	N/A	Nm
Max	Time	Min	Time
4.1	81.8	-11.3	63.9



Curve Description			
Driver Upper Neck Moment Z			
CURNO	Type	SAE Class	Units
220	CALC	N/A	Nm
Max	Time	Min	Time
30.9	103.8	-17.4	144.1

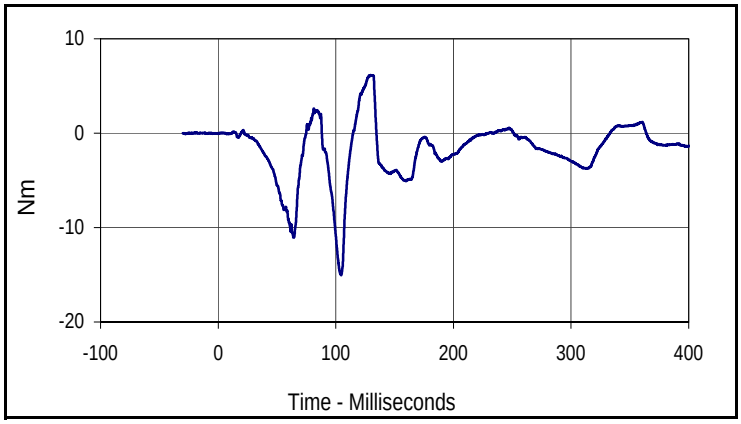


Curve Description			
Driver OC Force X			
CURNO	Type	SAE Class	Units
221	CALC	N/A	Newtons
Max	Time	Min	Time
789.1	62.7	-165.7	99.2

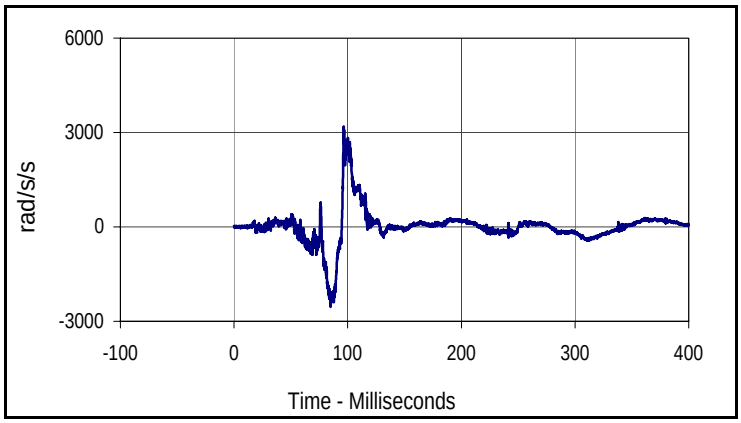


Curve Description			
Driver OC Force Z			
CURNO	Type	SAE Class	Units
222	CALC	N/A	Newtons
Max	Time	Min	Time
511.3	100.4	-1714.5	62.8

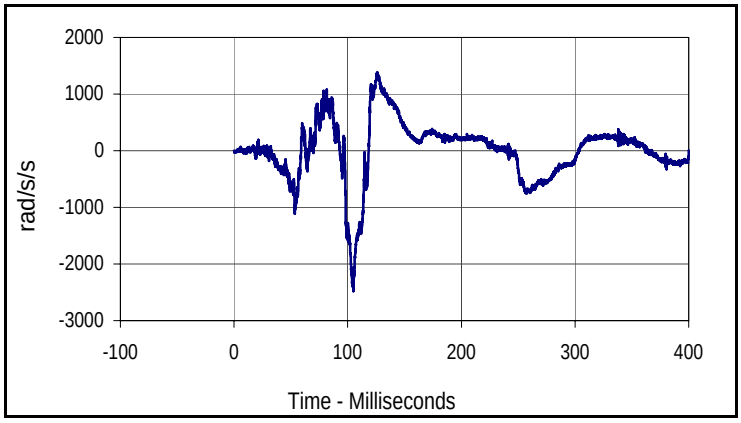
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



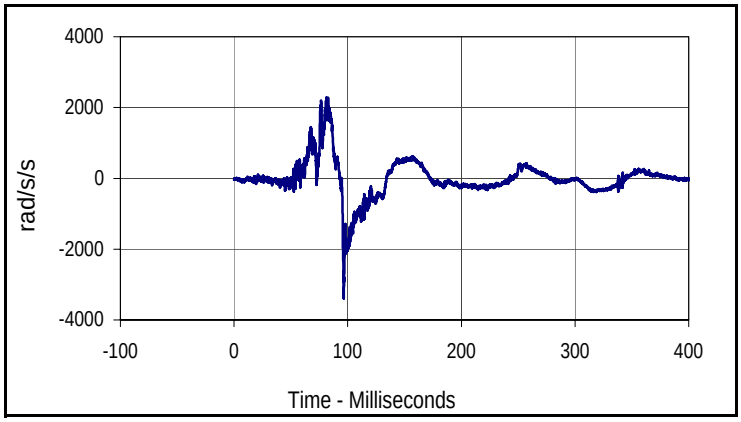
Curve Description			
Driver OC Moment Y			
CURNO	Type	SAE Class	Units
223	CALC	N/A	Nm
Max	Time	Min	Time
6.2	129.6	-15.1	104.5



Curve Description			
Driver Head Angular Acceleration X			
CURNO	Type	SAE Class	Units
224	CALC	N/A	rad/s/s
Max	Time	Min	Time
3163.1	96.4	-2538.3	84.9

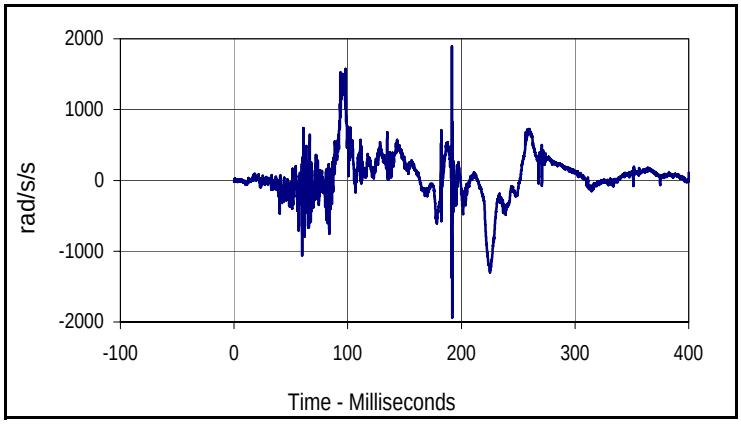


Curve Description			
Driver Head Angular Acceleration Y			
CURNO	Type	SAE Class	Units
225	CALC	N/A	rad/s/s
Max	Time	Min	Time
1376.2	126.0	-2474.3	105.0

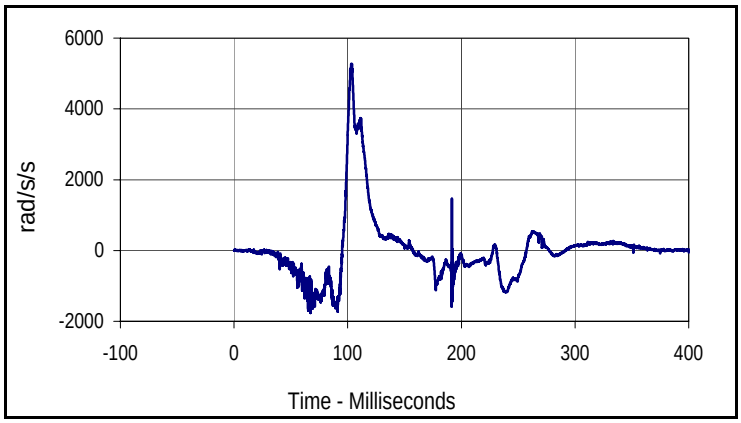


Curve Description			
Driver Head Angular Acceleration Z			
CURNO	Type	SAE Class	Units
226	CALC	N/A	rad/s/s
Max	Time	Min	Time
2281.8	81.3	-3382.4	96.6

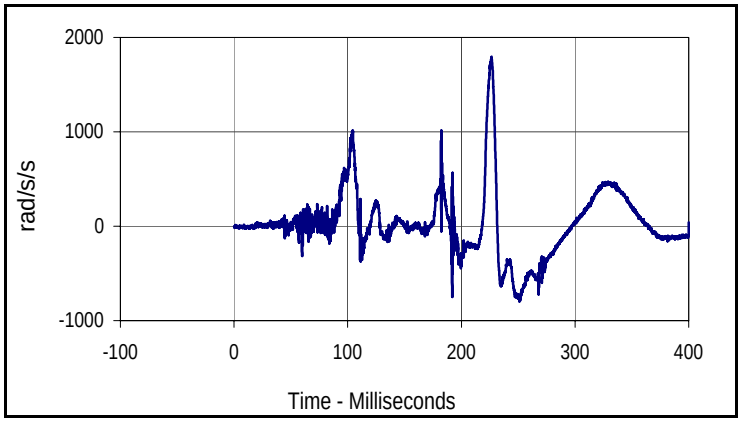
Test Vehicle:	2007 Ford Taurus SE 4-Door Sedan	NHTSA No.:	R70208
Test Program:	80 mph, 15°, 50% Offset MDB to Vehicle	Test Date:	11/17/09



Curve Description			
LR Passenger Head Angular Acceleration X			
CURNO	Type	SAE Class	Units
227	CALC	N/A	rad/s/s
Max	Time	Min	Time
1860.0	191.7	-1883.4	191.9



Curve Description			
LR Passenger Head Angular Acceleration Y			
CURNO	Type	SAE Class	Units
228	CALC	N/A	rad/s/s
Max	Time	Min	Time
5279.5	103.2	-1757.1	67.2

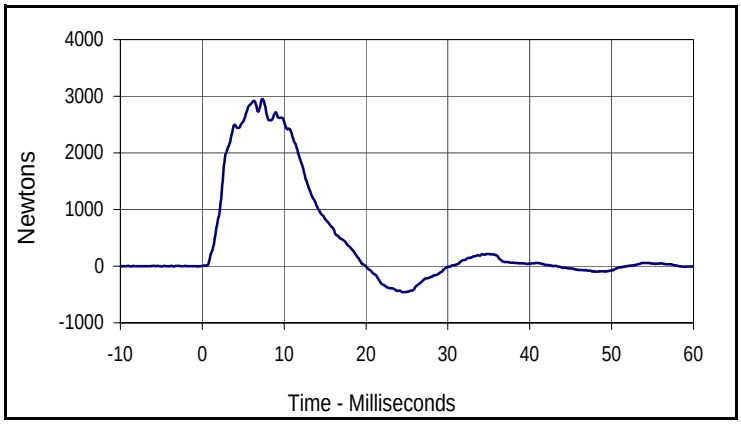


Curve Description			
LR Passenger Head Angular Acceleration Z			
CURNO	Type	SAE Class	Units
229	CALC	N/A	rad/s/s
Max	Time	Min	Time
1795.1	226.5	-795.1	251.2

APPENDIX C
DUMMY CERTIFICATION DATA

Test Program:	Thor-LX Dynamic Heel of Foot Impact Test	Test Date:	11/5/09
Serial No.:	G109	Test I.D.:	Heel01

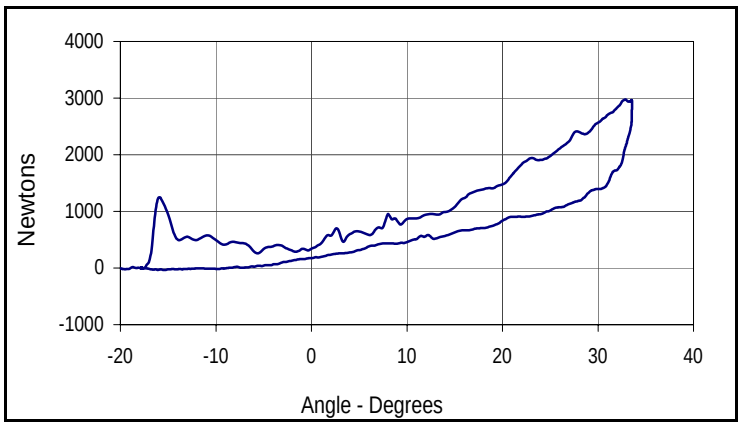
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	^{o}C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	3.90 to 4.10	4.05	Pass
Peak Lower Tibia Compressive Force	Newtons	2738 to 3346	2948	Pass
		Overall Test Results		Pass



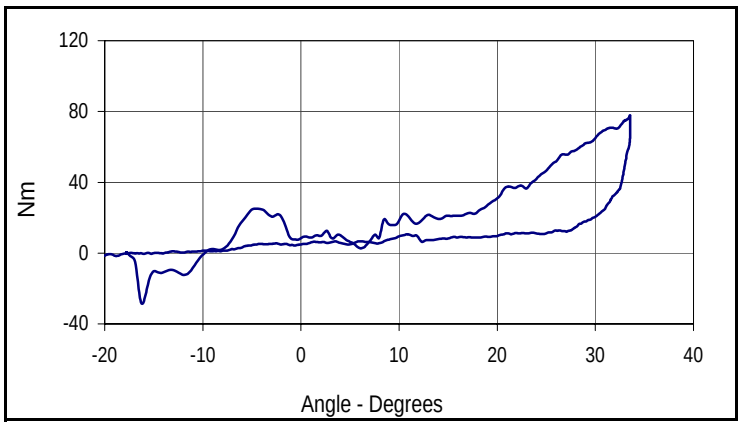
Curve Description			
Peak Lower Tibia Compressive Force			
CURNO	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Time	Min	Time
2948.3	7.4	-459.8	24.5

Test Program:	Thor-LX Dynamic Ball of Foot Impact Test	Test Date:	11/5/09
Serial No.:	G109	Test I.D.:	Ball001

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	4.90 to 5.10	4.95	Pass
Peak Lower Tibia Compressive Force	Newtons	2956 to 3613	2976	Pass
Peak Ankle Y Axis Rotation	Deg	32.7 to 39.9	33.6	Pass
Peak Ankle Resistive Moment	Nm	77.1 to 94.2	77.9	Pass
		Overall Test Results		Pass



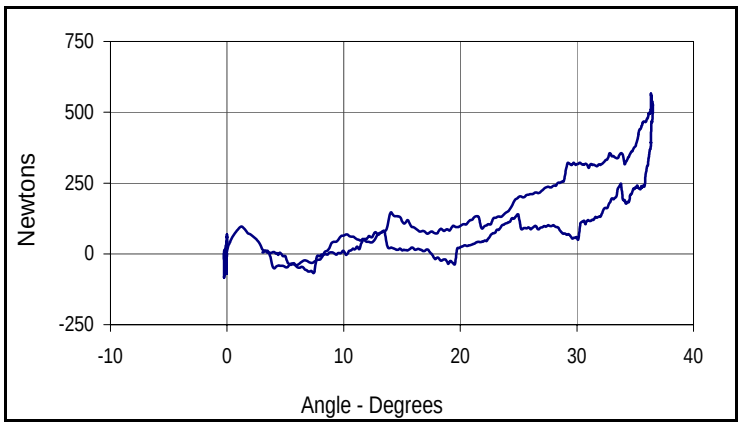
Curve Description			
Peak Lower Tibia Compressive Force vs. Angle			
CURNO	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Angle	Min	Angle
2975.6	32.9	-34.0	-25.4



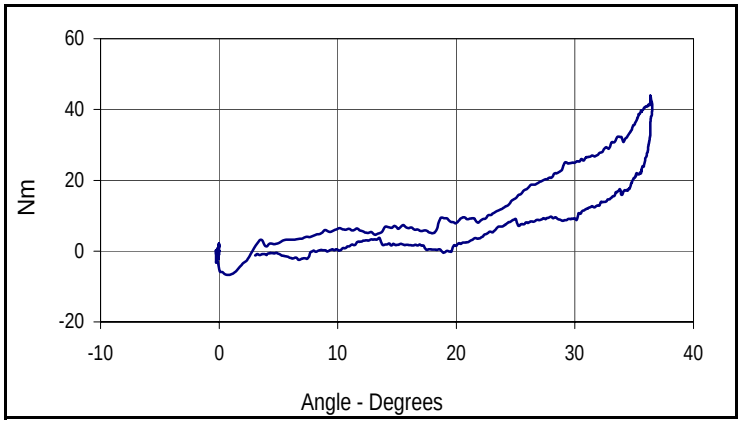
Curve Description			
Peak Ankle Resistive Moment vs. Angle			
CURNO	Type	SAE Class	Units
002	FIL	600	Nm
Max	Angle	Min	Angle
77.9	33.5	-28.4	-16.2

Test Program:	Thor-LX Dynamic Inversion Impact Test	Test Date:	11/5/09
Serial No.:	G109	Test I.D.:	INV001

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	^{o}C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	1.90 to 2.10	1.98	Pass
Peak Lower Tibia Compressive Force	Newtons	552 to 675	566	Pass
Peak Ankle X Axis Rotation	Deg	30.3 to 37.0	36.5	Pass
Peak Ankle Resistive Moment	Nm	36.3 to 44.4	43.9	Pass
		Overall Test Results		Pass



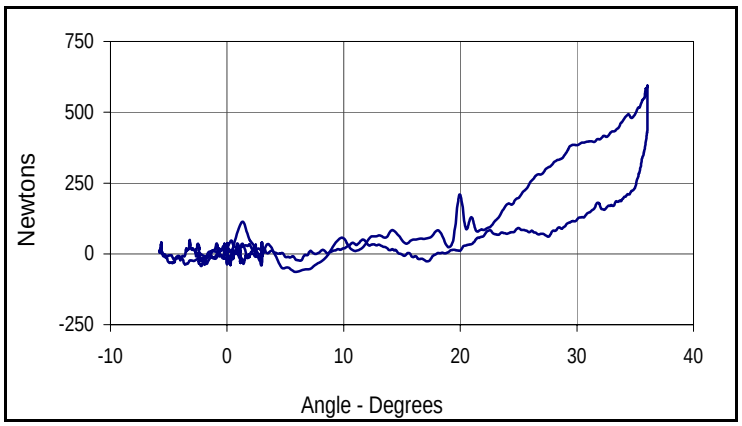
Curve Description			
Peak Lower Tibia Compressive Force vs. Angle			
CURNO	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Angle	Min	Angle
565.6	36.4	-83.6	-0.3



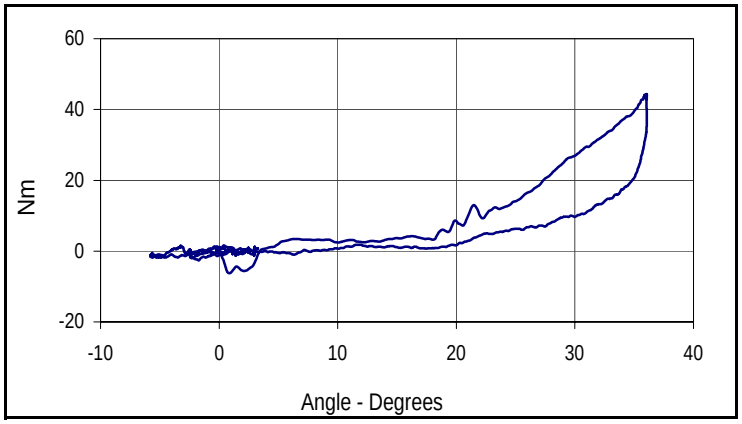
Curve Description			
Peak Ankle Resistive Moment vs. Angle			
CURNO	Type	SAE Class	Units
002	FIL	600	Nm
Max	Angle	Min	Angle
43.9	36.4	-6.7	0.8

Test Program:	Thor-LX Dynamic Eversion Impact Test	Test Date:	10/16/09
Serial No.:	G109	Test I.D.:	BLF1A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	^{o}C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	1.90 to 2.10	1.98	Pass
Peak Lower Tibia Compressive Force	Newtons	552 to 675	594	Pass
Peak Ankle X Axis Rotation	Deg	30.3 to 37.0	36.1	Pass
Peak Ankle Resistive Moment	Nm	36.3 to 44.4	44.3	Pass
		Overall Test Results		Pass



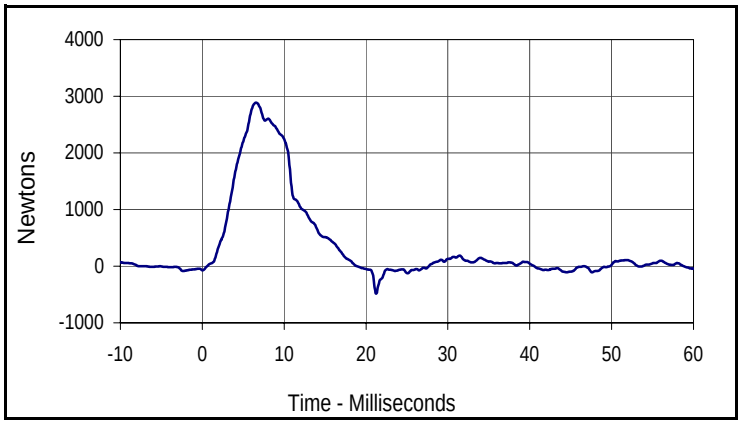
Curve Description			
Peak Lower Tibia Compressive Force vs. Angle			
CURNO	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Angle	Min	Angle
594.0	36.1	-64.1	5.9



Curve Description			
Peak Ankle Resistive Moment vs. Angle			
CURNO	Type	SAE Class	Units
002	FIL	600	Nm
Max	Angle	Min	Angle
44.3	36.0	-6.3	0.8

Test Program:	Thor-LX Dynamic Heel of Foot Impact Test	Test Date:	11/5/09
Serial No.:	0039	Test I.D.:	Heel02

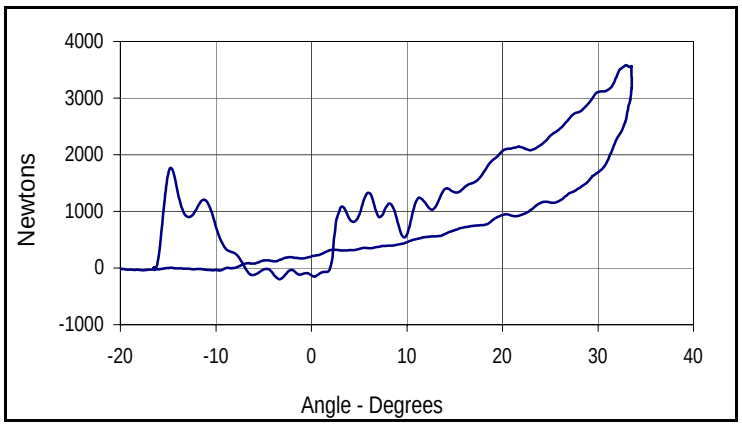
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	^{o}C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	3.90 to 4.10	4.05	Pass
Peak Lower Tibia Compressive Force	Newtons	2738 to 3346	2888	Pass
		Overall Test Results		Pass



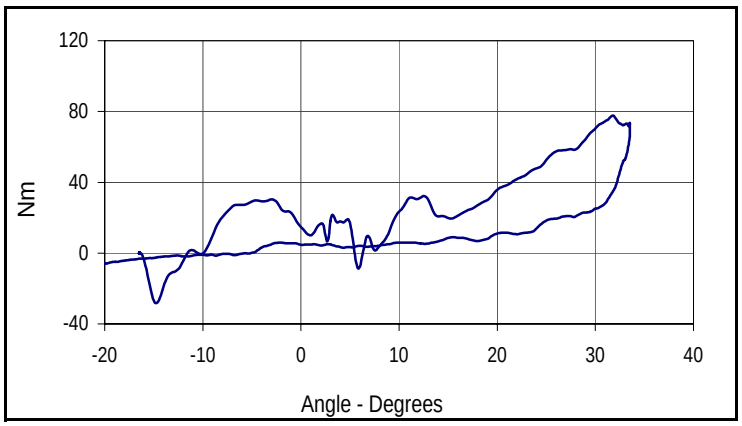
Curve Description			
Peak Lower Tibia Compressive Force			
CURNO	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Time	Min	Time
2888.1	6.6	-481.9	21.2

Test Program:	Thor-LX Dynamic Ball of Foot Impact Test	Test Date:	11/5/09
Serial No.:	0039	Test I.D.:	Ball002

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	4.90 to 5.10	5.04	Pass
Peak Lower Tibia Compressive Force	Newtons	2956 to 3613	3583	Pass
Peak Ankle Y Axis Rotation	Deg	32.7 to 39.9	33.5	Pass
Peak Ankle Resistive Moment	Nm	77.1 to 94.2	77.7	Pass
		Overall Test Results		Pass



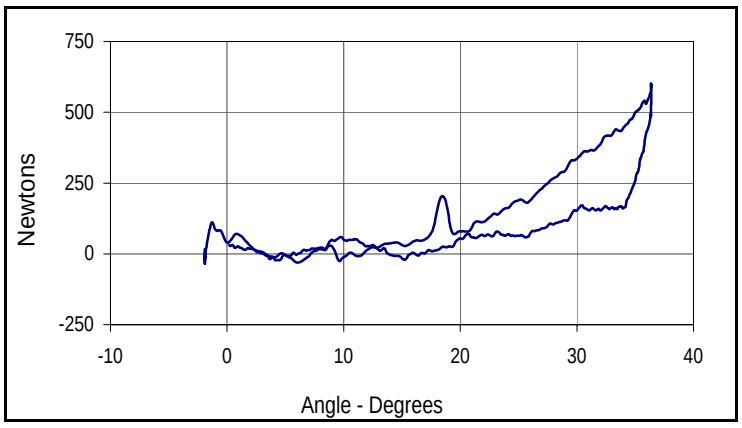
Curve Description			
Peak Lower Tibia Compressive Force vs. Angle			
CURNO	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Angle	Min	Angle
3583.3	32.9	-195.1	-3.3



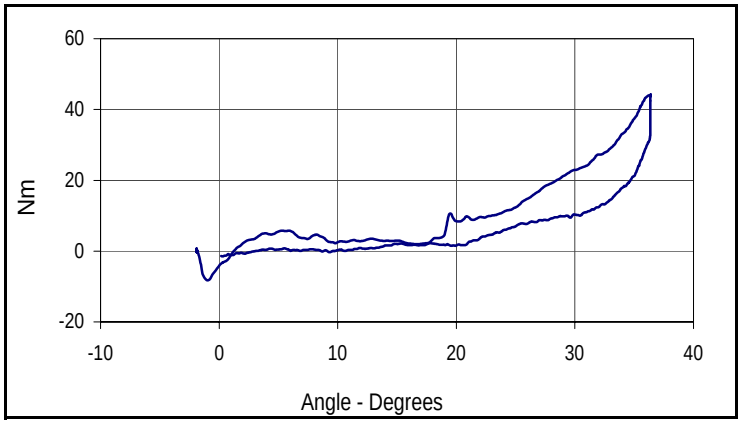
Curve Description			
Peak Ankle Resistive Moment vs. Angle			
CURNO	Type	SAE Class	Units
002	FIL	600	Nm
Max	Angle	Min	Angle
77.7	31.8	-28.2	-14.8

Test Program:	Thor-LX Dynamic Inversion Impact Test	Test Date:	11/5/09
Serial No.:	0039	Test I.D.:	INV001

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	^{o}C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	1.90 to 2.10	1.94	Pass
Peak Lower Tibia Compressive Force	Newtons	552 to 675	601	Pass
Peak Ankle X Axis Rotation	Deg	30.3 to 37.0	36.4	Pass
Peak Ankle Resistive Moment	Nm	36.3 to 44.4	44.2	Pass
		Overall Test Results		Pass



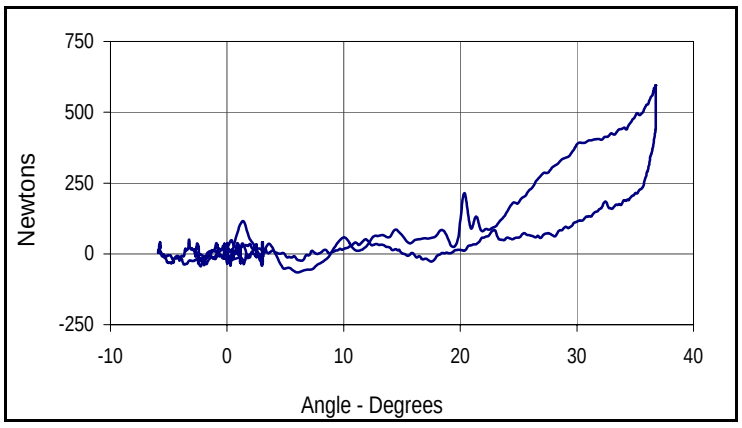
Curve Description			
Peak Lower Tibia Compressive Force vs. Angle			
CURNO	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Angle	Min	Angle
600.7	36.4	-35.3	-1.9



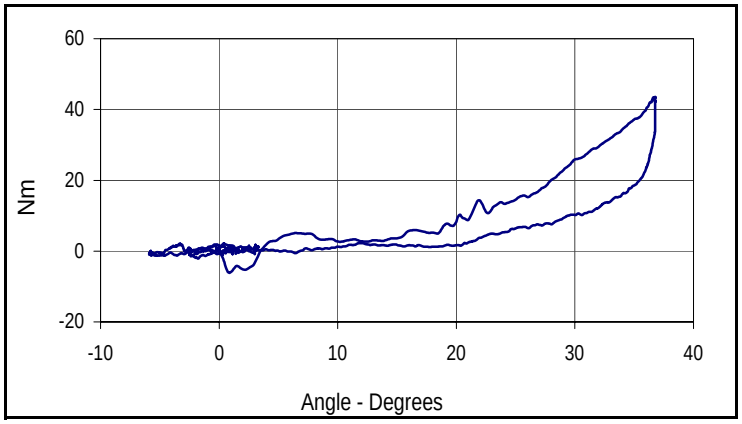
Curve Description			
Peak Ankle Resistive Moment vs. Angle			
CURNO	Type	SAE Class	Units
002	FIL	600	Nm
Max	Angle	Min	Angle
44.2	36.4	-8.3	-0.9

Test Program:	Thor-LX Dynamic Eversion Impact Test	Test Date:	10/16/09
Serial No.:	0039	Test I.D.:	EV002

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	^{o}C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	1.90 to 2.10	1.98	Pass
Peak Lower Tibia Compressive Force	Newtons	552 to 675	596	Pass
Peak Ankle X Axis Rotation	Deg	30.3 to 37.0	36.8	Pass
Peak Ankle Resistive Moment	Nm	36.3 to 44.4	43.5	Pass
		Overall Test Results		Pass



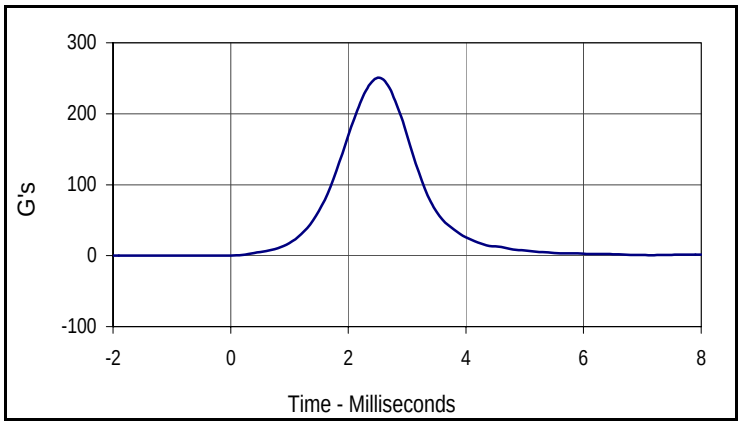
Curve Description			
Peak Lower Tibia Compressive Force vs. Angle			
CURNO	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Angle	Min	Angle
595.6	36.8	-65.5	6.1



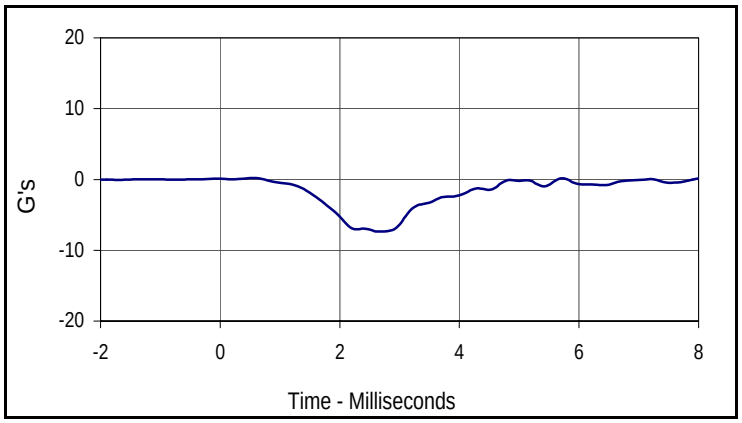
Curve Description			
Peak Ankle Resistive Moment vs. Angle			
CURNO	Type	SAE Class	Units
002	FIL	600	Nm
Max	Angle	Min	Angle
43.5	36.8	-6.1	0.9

Test Program:	Hybrid III 5th Percentile Female Head Drop Test	Test Date:	11/10/09
ATD Serial No.:	630	Test I.D.:	HD001

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	^{o}C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	250.0 to 300.0	250.9	Pass
Peak Lateral Acceleration	G's	≤15.0	7.4	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
		Overall Test Results		Pass



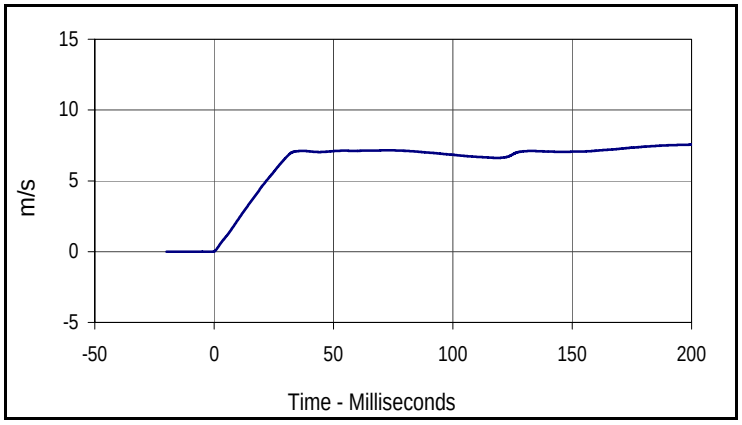
Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
250.9	2.5	0.0	-2.0



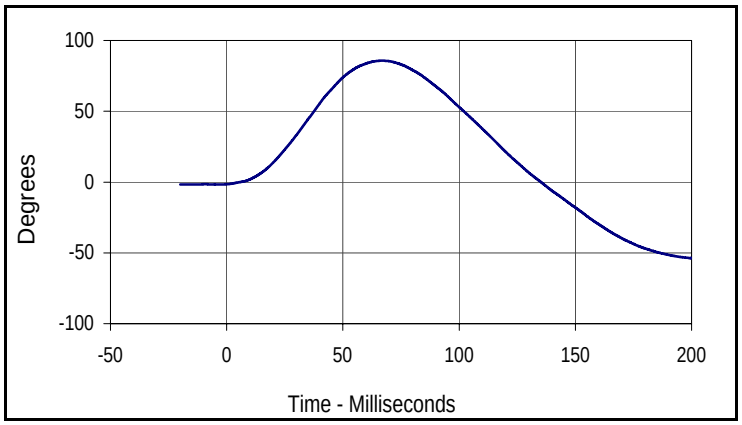
Curve Description			
Head Y			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
0.2	0.5	-7.4	2.7

Test Program:	Hybrid III 5th Percentile Female Neck Flexion Test	Test Date:	11/10/09
ATD Serial No.:	630	Test I.D.:	NF12B

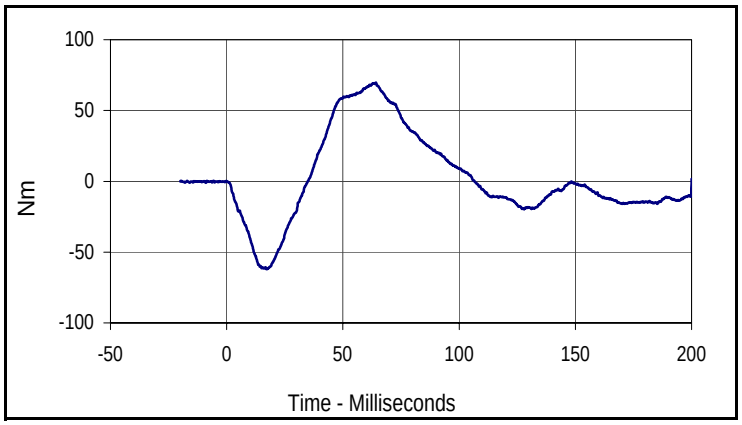
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	6.89 to 7.13	7.06	Pass
Pendulum Deceleration	10 Msec.	m/s	2.1 to 2.5	2.3	Pass
	20 Msec.	m/s	4.0 to 5.0	4.6	Pass
	30 Msec.	m/s	5.8 to 7.0	6.6	Pass
"D" Plane Rotation	Max	Degrees	77.0 to 91.0	85.7	Pass
Peak Moment in Rotation	Max	Nm	69.0 to 83.0	69.8	Pass
Positive Moment Decay, Time To 10 Nm		Msec.	80.0 to 100.0	99.8	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/s
Max	Time	Min	Time
7.6	200.0	0.0	-0.7



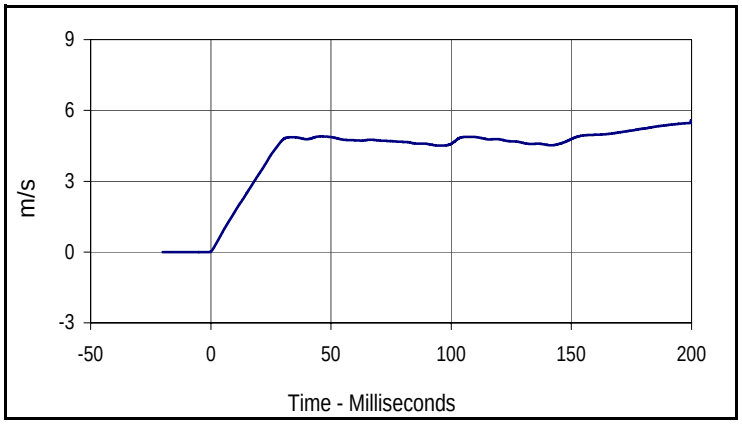
Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
85.7	66.9	-53.7	200.0



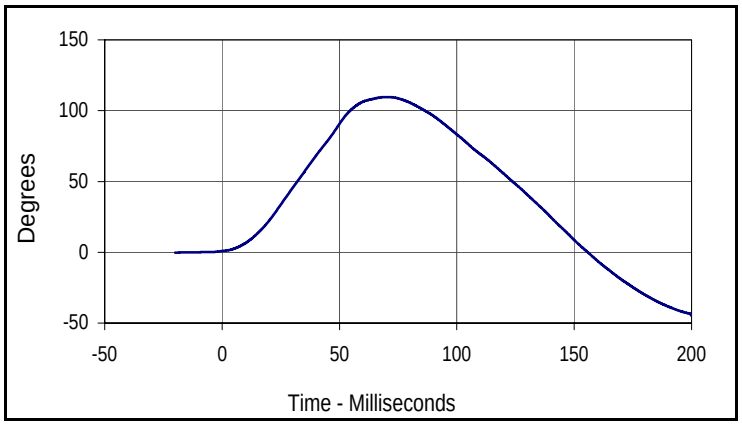
Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
002	FIL	600	Nm
Max	Time	Min	Time
69.8	64.2	-62.1	17.2

Test Program:	Hybrid III 5th Percentile Female Neck Extension Test	Test Date:	11/10/09
ATD Serial No.:	630	Test I.D.:	NE12C

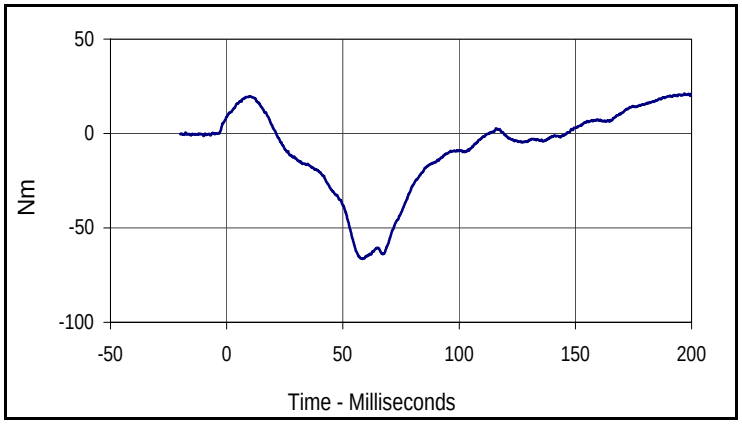
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	5.95 to 6.19	5.98	Pass
Pendulum Deceleration	10 Msec.	m/s	1.5 to 1.9	1.7	Pass
	20 Msec.	m/s	3.1 to 3.9	3.3	Pass
	30 Msec.	m/s	4.6 to 5.6	4.8	Pass
"D" Plane Rotation	Max	Degrees	99.0 to 114.0	109.6	Pass
Peak Moment in Rotation	Max	Nm	-53.0 to -65.0	64.9	Pass
Positive Moment Decay, Time To -10 Nm		Msec.	94.0 to 114.0	95.6	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/s
Max	Time	Min	Time
5.6	200.0	0.0	-0.9



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
109.6	69.9	-44.5	200.0



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
002	FIL	600	Nm
Max	Time	Min	Time
21.1	197.0	-64.9	58.4

Test Program:	Hybrid III 5th Percentile Female Knee Impact Test	Test Date:	11/11/09
ATD Serial No.:	630	Test I.D.:	LK12A , RK12A

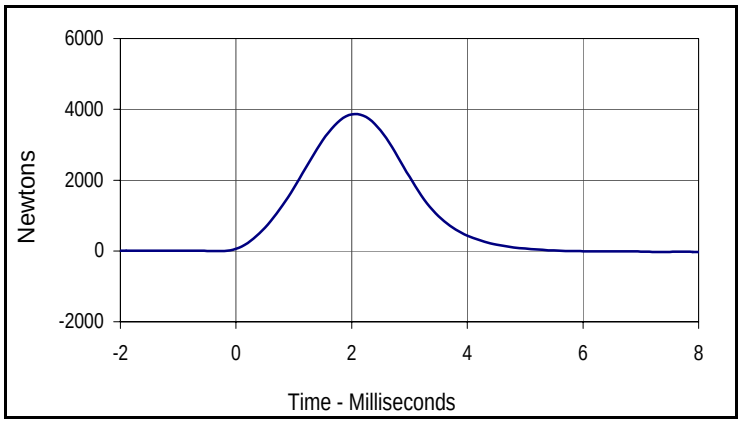
Left Knee

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	2.09	Pass
Peak Probe Force	Newtons	3450 to 4060	3765	Pass
		Overall Test Results		Pass

Right Knee

Pendulum Velocity at T=0	m/sec	2.07 to 2.13	2.09	Pass
Peak Probe Force	Newtons	3450 to 4060	3862	Pass
		Overall Test Results		Pass

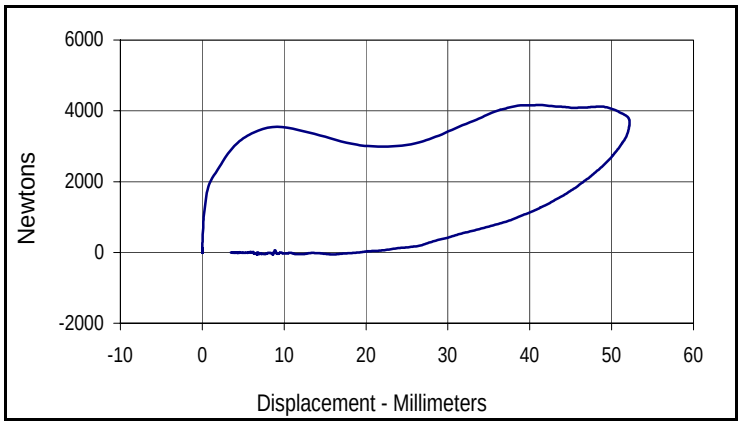
Curve Description			
Left Knee Probe Force			
CURNO	Type	SAE Class	Units
001	FIL	600	Newtons
Max	Time	Min	Time
3765.4	2.1	-33.4	7.0



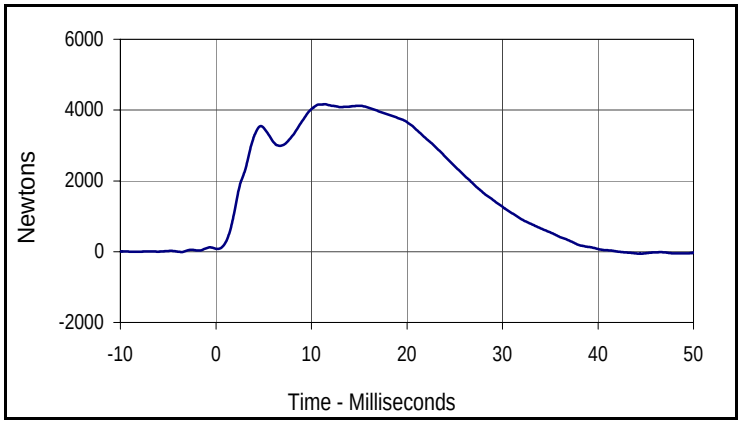
Curve Description			
Right Knee Probe Force			
CURNO	Type	SAE Class	Units
002	FIL	600	Newtons
Max	Time	Min	Time
3862.2	2.1	-34.3	8.7

Test Program:	Hybrid III 5th Percentile Female Thorax Impact Test	Test Date:	11/12/09
ATD Serial No.:	630	Test I.D.:	CH001

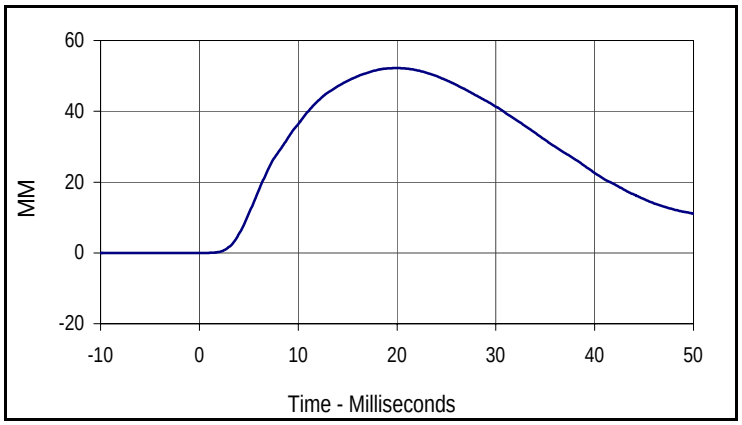
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	6.59 to 6.83	6.63	Pass
Peak Chest Deflection	MM	50.0 to 58.0	52.2	Pass
Peak Force Between 50 and 58 MM	Newtons	3900 to 4400	4162	Pass
Peak Force Between 18 and 50 MM	Newtons	≤4600	4058	Pass
Internal Hysterysis	%	69 to 85	81.4	Pass
		Overall Test Results		Pass



Curve Description			
Probe Force vs. Chest Deflection			
CURNO	Type	SAE Class	Hysterysis
003	FIL	180	81.4
Peak Probe Force		Peak Chest Displ.	
4161.9		52.2	



Curve Description			
Probe Force			
CURNO	Type	SAE Class	Units
002	FIL	180	Newtons
Max	Time	Min	Time
4161.9	11.4	-67.1	86.8



Curve Description			
Chest Deflection			
CURNO	Type	SAE Class	Units
001	FIL	180	MM
Max	Time	Min	Time
52.2	19.9	0.0	-9.0

Test Program:	Hybrid III 5th Percentile Female Torso Flexion Test	Test Date:	11/11/09
ATD Serial No.:	630	Test I.D.:	TF001

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	^{o}C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Initial reference plane angle	Degrees	≤ 20.0	5.2	Pass
Peak Force at 45 +/-0.5 degrees	Newtons	320.0 to 390.0	365.2	Pass
Torso rotation rate	deg/sec	0.5 to 1.5	1.2	Pass
Final reference plane angle	Degrees	+/-8	3.5	Pass
		Overall Test Results		Pass

Test Program:	Hybrid III 5th Percentile Female External Measurements	Test Date:	11/12/09
ATD Serial No.:	630	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	774.7 to 800.1	779	Pass
B - Shoulder pivot height	mm	431.8 to 457.2	445	Pass
C - "H" point height (Reference)	mm	81.3 to 86.3	84	Pass
D - "H" point from seat back (Ref.)	mm	144.8 to 149.8	145	Pass
E - Shoulder pivot from backline	mm	68.6 to 83.8	81	Pass
F - Thigh clearance	mm	119.4 to 134.6	131	Pass
G - Back of elbow to wrist pivot	mm	243.9 to 259.1	255	Pass
H - Head to back line	mm	40.7 to 45.7	44	Pass
I - Shoulder to elbow length	mm	276.8 to 297.2	290	Pass
J - Elbow rest heignt	mm	182.8 to 203.2	200	Pass
K - Buttock to knee length	mm	520.7 to 546.1	544	Pass
L - Poplipteal height	mm	355.6 to 376.0	365	Pass
M - Knee pivot height	mm	393.7 to 419.1	415	Pass
N - Buttock poplipteal length	mm	414.0 to 439.4	420	Pass
O - Chest depth without jacket	mm	175.3 to 190.5	185	Pass
P - Foot length	mm	218.5 to 233.7	230	Pass
R - Buttock to knee pivot length	mm	457.2 to 482.6	475	Pass
S - Head breadth	mm	137.1 to 147.3	145	Pass
T - Head depth	mm	177.8 to 188.0	180	Pass
U - Hip breadth	mm	299.7 to 314.9	312	Pass
V - Shoulder breadth	mm	350.5 to 365.7	365	Pass
W - Foot breadth	mm	78.8 to 94.0	90	Pass
X - Head circumference	mm	528.3 to 548.7	540	Pass
Y - Chest circumference with jacket	mm	850.8 to 881.3	880	Pass
Z - Waist circumference	mm	759.5 to 789.9	775	Pass
AA - Location for chest circumference	mm	299.7 to 309.9	305	Pass
BB - Location for waist circumference	mm	160.1 to 170.2	165	Pass
		Overall Test Results		Pass

APPENDIX D
SUPPLEMENTARY INFORMATION

DRIVER ATD INITIAL ANGLES OF POTENTIOMETERS

THOR S/N: 0006										Sensitivity (JARI)	Sensitivity (GESAC)	Setup Angle (GESAC) for *.set file
Sensor		Mfg	S/N	Capacity	Unit-1	Unit-2	Range	Direction	CFC	V/Unit-1	V/Unit-1	Degrees
NKCRP		Contolec	pd210-4B	318	deg	mV	1000	Rear +	180	0.031551	0.031551	
CX-1ULB		Contolec	CRUX-0040	318	deg	mV	2000	Rear +	180	0.031103	0.031103	151.6418
CX-2ULM		Contolec	CRUX-0041	318	deg	mV	2000	Rear +	180	0.031087	0.031087	256.3945
CX-3ULE		Contolec	CRUX-0042	318	deg	mV	2000	Rear +	180	0.0309	0.0309	74.82515
CX-1URB		Contolec	CRUX-0001	318	deg	mV	2000	Rear +	180	0.031531	0.031531	169.3518
CX-2URM		Contolec	CRUX-0307	318	deg	mV	2000	Rear +	180	0.031107	0.031107	72.01164
CX-3URE		Contolec	CRUX-0003	318	deg	mV	2000	Rear +	180	0.03199	0.03199	244.6895
CX-1LLB		Contolec	CRUX-0023	318	deg	mV	2000	Rear +	180	0.030492	0.030492	170.6074
CX-2LLM		Contolec	CRUX-0357	318	deg	mV	2000	Rear +	180	0.030519	0.030519	76.07653
CX-3LLE		Contolec	CRUX-0317	318	deg	mV	2000	Rear +	180	0.031613	0.031613	204.8654
CX-1LRB		Contolec	CRUX-0043	318	deg	mV	2000	Rear +	180	0.031539	0.031539	160.5694
CX-2LRM		Contolec	CRUX-0706	318	deg	mV	2000	Rear +	180	0.031197	0.031197	230.9136
CS-3LRE		Contolec	CRUX-0074	318	deg	mV	2000	Rear +	180	0.031896	0.031896	172.6564
DP1-L	LString	Space-Age	256	101.6	mm	mV	10000	Rear +	180	0.094593	0.094593	185.03
DP2-L	LZ-Pot	Contolec	0107	318	deg	mV	1000	Rear +	180	0.0299	0.0299	163.95
DP3-L	LY-Pot	Duncan	0410	360	deg	mV	1000	Rear +	180	0.031701	0.031701	154.24
DP1-R	RString	Space-Age	014486	101.6	mm	mV	10000	Rear +	180	0.096073	0.096073	188.02
DP2-R	RZ-Pot	Contolec	0104	318	deg	mV	1000	Rear +	180	0.028875	0.028875	153.13
DP3-R	RY-Pot	Duncan	0361	360	deg	mV	1000	Rear +	180	0.031631	0.031631	160.77

DRIVER ATD TILT SENSOR MEASUREMENTS

Channel	THOR NT	Tilt Sensor	
		X	Y
0	Head		
1	Neck		
2	Thoracic Spine		
3	Lumbar Spine		
4	Pelvis		
	Neck Pitch Setting	Neutral	
	Spine Pitch Setting	Slouch	