REPORT NUMBER: 208-2401156-TEST

VEHICLE SAFETY COMPLIANCE TESTING
FOR
FMVSS 208, OCCUPANT CRASH PROTECTION
FMVSS 212, WINDSHIELD MOUNTING
FMVSS 219, WINDSHIELD INTRUSION (PARTIAL)
FMVSS 305, ELECTROLYTE SPILLAGE & ELECTRICAL SHOCK PROTECTION

VINFAST TRADING AND PRODUCTION JOINT STOCK COMPANY
2024 VINFAST VF8 MPV
NHTSA NO.: C20244703

PREPARED BY:
MGA RESEARCH CORPORATION
5000 WARREN ROAD
BURLINGTON, WI 53105

TEST DATE: NOVEMBER 6, 2024

FINAL REPORT DATE: JANUARY 10, 2025

FINAL REPORT

PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
1200 NEW JERSEY AVENUE, S.E.
WASHINGTON, D.C. 20590

This final test report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, in response to Contract Number 693JJ919D000012.

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Prepared by: Jose Galvez Date: January 10, 2025
Jose Galvez, Project Engineer

Reviewed by: David Winkelbauer Date: January 10, 2025
David Winkelbauer, Facility Director

Accepted By: Syed Rahman
COR

Acceptance Date: January 10, 2025

Technical Report Documentation Page

1. Report No. 208-2401156-TEST	*2. Government Accession No.*	*3. Recipient's Catalog No.*	
4. Title and Subtitle Final Report of FMVSS 208 Compliance Testing of a 2024 Vinfast VF8 NHTSA No.: C20244703		*5. Report Date* January 10, 2025 *6. Performing Organization Code* MGA	
7. Author(s) Jose Galvez, Project Engineer		*8. Performing Organization Report No.* 208-MGA-2024-005	
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12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Enforcement Office of Vehicle Safety Compliance Mail Code: NEF-240 1200 New Jersey Avenue, S.E. Washington, D.C. 20590		*13. Type of Report and Period Covered* 11/6/24 *14. Sponsoring Agency Code* NEF-240	
15. Supplementary Notes			
16. Abstract Compliance tests were conducted on the subject 2024 Vinfast VF8 in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP208-14. Test failures identified were as follows: TEST FAILURES: None			
17. Key Words Frontal Impact 56 kmph Vehicle Safety Compliance Testing FMVSS 208, “Occupant Crash Protection” FMVSS 212, “Windshield Mounting” FMVSS 219, (partial), “Windshield Zone Intrusion” FMVSS 305, “Electrolyte Spillage & Electrical Shock Protection”		*18. Distribution Statement* Copies of this report are available from the following: U.S. Department of Transportation National Highway Traffic Safety Administration Technical Information Services (TIS) Mail Code: NIO-120 1200 New Jersey Avenue, S.E. Washington, DC 20590 Phone: 202-366-2588	
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SECTION 1
PURPOSE OF COMPLIANCE TESTS

This Federal Motor Vehicle Safety Standard 208 compliance test is part of a program conducted for the National Highway Traffic Safety Administration (NHTSA) by MGA Research Corporation (MGA) under Contract No.: 693JJ919D000012. The purpose of this test was to determine whether the subject vehicle, a 2024 Vinfast VF8, NHTSA No.: C20244703, meets certain performance requirements of FMVSS 208, "Occupant Crash Protection"; FMVSS 212, "Windshield Mounting"; FMVSS 219, "Windshield Zone Intrusion"; and FMVSS 305, "Electric Powered Vehicles: Electrolyte Spillage and Electrical Shock Protection." The compliance test was conducted in accordance with OVSC Laboratory Test Procedure No.: TP208-14 dated April 16, 2008.

SECTION 2

TESTS PERFORMED

Test Vehicle: 2024 Vinfast VF8 NHTSA No.: C20244703
Test Program: FMVSS 208 Compliance Test Dates: 11/6/24

The following checked items indicate the tests that were performed:

- [ ] 1. Rear seating position seat belts
- [ ] 2. Air bag labels (S4.5.1)
- [ ] 3. Readiness indicator (S4.5.2)
- [ ] 4. Passenger air bag manual cut-off device (S4.5.4)
- [ ] 5. Lap belt lockability (S7.1.1.5)
- [ ] 6. Seat belt warning system (S7.3)
- [ ] 7. Seat belt contact force (S7.4.3)
- [ ] 8. Seat belt latch plate access (S7.4.4)
- [ ] 9. Seat belt retraction (S7.4.5)
- [ ] 10. Seat belt guides and hardware (S7.4.6)
- [ ] 11. Air bag suppression telltale (S19.2.2)
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- [ ] 16. Test of Reactivation of the passenger air bag system with an unbelted 5th percentile female dummy
- [ ] 17. Low risk deployment test with 12-month-old dummy (Part 572, Subpart R)
- [ ] 18. Low risk deployment test with 3-year-old dummy (Part 572, Subpart P)
- [ ] 19. Low risk deployment test with 6-year-old dummy (Part 572, Subpart N)
- [ ] 20. Low risk deployment test with 5th female dummy (Part 572, Subpart O)
- [X] 21. Impact Tests
  - [ ] Frontal Oblique
    - [ ] Belted 50th male dummy driver and passenger (0 to 48 kmph) (S5.1.1(a))
    - [ ] Unbelted 50th male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a)(1))
    - [ ] Unbelted 50th male dummy driver and passenger (32 to 56 kmph) (S5.1.2(a)(1) or S5.1.2(b))
  - [X] Frontal 0°
    - [ ] Belted 50th male dummy driver (0 to 56 kmph (S5.1.1(b)(2))
    - [ ] Belted 50th male dummy passenger (0 to 56 kmph) (S5.1.1.(b)(2))
    - [X] Belted 5th female dummy driver (0 to 56 kmph) (S16.1(a)(2))
    - [X] Belted 5th female dummy passenger (0 to 56 kmph) (S16.1(a)(2))
    - [ ] Unbelted 50th male dummy driver (32 to 40 kmph) (S5.1.2(b))
    - [ ] Unbelted 50th male dummy passenger (32 to 40 kmph) (S5.1.2(b))
    - [ ] Unbelted 5th female dummy driver (32 to 40 kmph) (S16.1(b))
    - [ ] Unbelted 5th female dummy passenger (32 to 40 kmph) (S16.1(b))
  - [ ] 40% Offset 0° Belted 5th female dummy driver and passenger (0 to 56 kmph) (S18.1)
- [ ] 22. FMVSS 204 Indicant Test
- [X] 23. FMVSS 212 Indicant Test
- [X] 24. FMVSS 219 Indicant Test
- [ ] 25. FMVSS 301 Frontal Test
- [X] 26. FMVSS 305 Frontal Indicant Test

For the crash tests, the vehicle was instrumented with 8 accelerometers. The data from the vehicle and dummies were sampled at 10,000 samples per second and processed as specified in SAE J211/1 MAR95 and FMVSS 208, S4.13.

The dynamic tests were recorded using high-speed digital video.

The vehicle appears to meet the performance requirements to which it was tested.

SECTION 3

INJURY RESULT SUMMARY FOR FMVSS 208 TESTS

Test Vehicle: 2024 Vinfast VF8 NHTSA No.: C20244703
Test Program: FMVSS 208 Compliance Test Date: 11/6/24

56 kmph Frontal Crash

Impact Angle:	0º			
Belted Dummies:	X	Yes		No

Speed Range:		0 to 40 kmph		32 to 40 kmph
		0 to 48 kmph	X	0 to 56 kmph

Test Speed (kmph):	55.1	Test Weight (kg):	2659.0

Driver Dummy:	X	5th female		50th male
Passenger Dummy:	X	5th female		50th male

5th Percentile Female Frontal Crash Test
Vehicles certified to S16.1 (a) (1), S16.1 (a) (2), S16.1 (b), or S18.1

Injury Criteria	Max. Allowable Injury Assessment Values	Driver	Passenger
HIC15	700	266	624
N_{te}	1.0	0.8	0.3
N_{tf}	1.0	0.4	0.3
N_{ce}	1.0	0.6	0.4
N_{cf}	1.0	0.2	0.1
Neck Tension	2620 N	1892	679
Neck Compression	2520 N	558	246
Chest g	60 g	47	46
Chest Displacement	52 mm	26	24
Left Femur	6805 N	1394	1661
Right Femur	6805 N	1533	1718

SECTION 4

DISCUSSION OF TESTS

Test Vehicle:	2024 Vinfast VF8	NHTSA No.:	C20244703
Test Program:	FMVSS 208 Compliance	Test Dates:	11/6/24

The 2024 Vinfast VF8 (C20244703) was tested to FMVSS 305 in conjunction with the FMVSS 208 frontal impact. The test was performed in accordance with the specifications of the Office of Vehicle Safety Compliance (OVSC) Test Procedures TP-305-01 to determine compliance to the requirements of Federal Motor Vehicle Safety Standards (FMVSS) 305, “Electric Powered Vehicles: Electrolyte Spillage and Electrical Shock Protection”.

Based on the test results, the 2024 Vinfast VF8 (C20244703) appears to meet the requirements of FMVSS 305 testing.

SECTION 5

TEST DATA SHEETS

Test Vehicle:	2024 Vinfast VF8	NHTSA No.:	C20244703
Test Program:	FMVSS 208 Compliance	Test Dates:	11/6/24

DATA SHEET 1

COTR VEHICLE WORK ORDER

Test Vehicle: 2024 Vinfast VF8 NHTSA No.: C20244703
Test Program: FMVSS 208 Compliance Test Dates: 11/6/24

COTR Signature: Syed Rahaman

Test to be performed for this vehicle are checked below:

- [ ] 1. Rear Seating Position Seat Belts
- [ ] 2. Air Bag Labels (S4.5.1)
- [ ] 3. Readiness Indicator (S4.5.2)
- [ ] 4. Passenger Air Bag Manual Cut-off Device (S4.5.4)
- [ ] 5. Lap Belt Lockability (S7.1.1.5)
- [ ] 6. Seat Belt Warning System (S7.3)
- [ ] 7. Seat Belt Contact Force (S7.4.3)
- [ ] 8. Seat Belt Latch Plate Access (S7.4.4)
- [ ] 9. Seat Belt Retraction (S7.4.5)
- [ ] 10. Seat Belt Guides and Hardware (S7.4.6)
- [ ] 11. Air bag suppression telltale (S19.2.2)
- [ ] 12. Suppression tests with 12-month-old CRABI dummy (Part 572, Subpart R) using the following indicated child restraints (mid-height seat position):

Section B – Rear Facing (unbelted and belted rear facing, unbelted forward facing)

[ ]	Century Smart Fit 4543	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward
[ ]	Cosco Arriva 22-013	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward
[ ]	Evenflo Discovery Adjust Right 212	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward
[ ]	Graco Infant 8457	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward
[ ]	Graco Snugride	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward
[ ]	Peg Perego Viaggio	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward

Section C – Convertible (unbelted and belted rear facing, unbelted and belted forward facing)

[ ]	Britax Roundabout E9L02	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward
[ ]	Cosco High Back Booster 22-209	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward
[ ]	Cosco Summit Deluxe 22-262	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward
[ ]	Cosco Touriva 02519	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward
[ ]	Evenflo Generations 352	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward
[ ]	Evenflo Medallion 254	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward
[ ]	Evenflo Tribute V 379	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward
[ ]	Graco ComfortSport	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward
[ ]	Graco Platinum Cargo	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward
[ ]	Graco Safeseat Step 2	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward

- [ ] 13. Suppression tests with newborn infant (Part 572, Subpart K) using the following indicated child restraints (mid-height seat position).

Section A – Car Bed (Belted)

[ ]	Angel Guard Angel Ride	[ ] Full Rearward	[ ] Mid Position	[ ] Full Forward

☐ 14. Suppression tests with 3-year-old dummy (Part 572, Subpart P) using the following indicated child restraints where a child restraint is required (mid-height seat position):

Section C – Convertible (Belted forward-facing)

☐ Britax Roundabout E9L02	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Cosco High Back Booster 22-209	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Cosco Summit Deluxe 22-262	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Cosco Touriva 02519	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Evenflo Generations 352	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Evenflo Medallion 254	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Evenflo Tribute V 379	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Graco ComfortSport	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Graco Platinum Cargo	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Graco Safeseat Step 2	☐ Full Rearward	☐ Mid Position	☐ Full Forward

Section D – Toddler/Belt Positioning Booster (Belted)

☐ Britax Roadster 9004	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Cosco High Back Booster 22-209	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Cosco Summit Deluxe 22-262	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Evenflo Generations 352	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Evenflo Right Fit 245	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Graco Platinum Cargo	☐ Full Rearward	☐ Mid Position	☐ Full Forward

☐ 15. Suppression tests with representative 3-year-old child using the following indicated child restraints where a child restraint is required (mid-height position). (Appendix H, Data Sheet 19H and 20H)

Section C – Convertible (Belted forward-facing)

☐ Britax Roundabout E9L02	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Cosco High Back Booster 22-209	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Cosco Summit Deluxe 22-262	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Cosco Touriva 02519	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Evenflo Generations 352	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Evenflo Medallion 254	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Evenflo Tribute V 379	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Graco ComfortSport	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Graco Platinum Cargo	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Graco Safeseat Step 2	☐ Full Rearward	☐ Mid Position	☐ Full Forward

Section D – Toddler/Belt Positioning Booster (Belted)

☐ Britax Roadster 9004	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Cosco High Back Booster 22-209	☐ Full Rearward	☐ Mid Position	☐ Full Forward
☐ Evenflo Right Fit 245	☐ Full Rearward	☐ Mid Position	☐ Full Forward

☐ 16. Suppression tests with 3-year-old dummy (Part 572, Subpart P) in the following positions (mid-height seat position):

☐ Sitting on seat with back against seat back (S22.2.2.1)
☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Sitting on seat with back against reclined seat back (S22.2.2.2)
☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Sitting on seat with back not against seat back (S22.2.2.3)
☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Sitting on seat edge, spine vertical, hands by the child's side (S22.2.2.4)
☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Standing on seat, facing forward (S22.2.2.5)
☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Kneeling on seat facing forward (S22.2.2.6)
☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Kneeling on seat facing rearward (S22.2.2.7)
☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Lying on seat (S22.2.2.8)
☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ 17. Suppression tests with representative 3-year-old child in the following positions (mid-height seat position):

☐ Sitting on seat with back against seat back (S22.2.2.1)
☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Sitting on seat with back against reclined seat back (S22.2.2.2)
☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Sitting on seat with back not against seat back (S22.2.2.3)
☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Sitting on seat edge, spine vertical, hands by the child's side (S22.2.2.4)
☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Standing on seat, facing forward (S22.2.2.5)
☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Kneeling on seat facing forward (S22.2.2.6)
☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Kneeling on seat facing rearward (S22.2.2.7)
☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Lying on seat (S22.2.2.8)
☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ 18. Suppression tests with 6-year-old dummy (Part 572, Subpart N) using the following indicated child restraints where a child restraint is required (mid-height seat position):
Section D

☐ Britax Roadster 9004 ☐ Full Rearward ☐ Mid Position ☐ Full Forward
☐ Cosco High Back Booster 22-209 ☐ Full Rearward ☐ Mid Position ☐ Full Forward
☐ Cosco Summit Deluxe 22-262 ☐ Full Rearward ☐ Mid Position ☐ Full Forward
☐ Evenflo Generations 352 ☐ Full Rearward ☐ Mid Position ☐ Full Forward
☐ Evenflo Right Fit 245 ☐ Full Rearward ☐ Mid Position ☐ Full Forward
☐ Graco Platinum Cargo ☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ 19. Suppression tests with representative 6-year-old child using the following indicated child restraints where a child restraint is required (mid-height seat position):

Section D

☐ Britax Roadster 9004 ☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Cosco High Back Booster 22-209 ☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Cosco Summit Deluxe 22-262 ☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Evenflo Generations 352 ☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Evenflo Right Fit 245 ☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Graco Platinum Cargo ☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ 20. Suppression tests with 6-year-old dummy (Part 572, Subpart N) in the following positions (mid-height seat position):

☐ Sitting on seat with back against seat back (S22.2.2.1)

☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Sitting on seat with back against reclined seat back (S22.2.2.2)

☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Sitting on seat edge, spine vertical, hands by the child's side (S22.2.2.4)

☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Sitting back in the seat and leaning on the right front passenger door (S24.2.3)

☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ 21. Suppression tests with representative 6-year-old child in the following positions (mid-height seat position):

☐ Sitting on seat with back against seat back (S22.2.2.1)

☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Sitting on seat with back against reclined seat back (S22.2.2.2)

☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Sitting on seat edge, spine vertical, hands by the child's side (S22.2.2.4)

☐ Full Rearward ☐ Mid Position ☐ Full Forward

☐ Sitting back in the seat and leaning on the right front passenger door (S24.2.3)

☐ 22. Test of Reactivation of the Passenger Air Bag System with an unbelted 5th percentile female dummy (S20.3, 22.3, S24.3) (mid-height seat position). Perform this test after the following suppression tests: After each restraint.

☐ 23. Test of Reactivation of the Passenger Air Bag System with an unbelted 5th percentile female human subject (S20.3, 22.3, S24.3) (mid-height seat position). Perform this test after the following suppression tests: After each restraint.

☐ 24. Low risk deployment test with 12-month-old dummy (Part 572, Subpart R) using the following indicated child restraints (full forward, mid-height seat position)(S20.4):

Section B

☐ Century Smart Fit 4543

☐ Cosco Arriva 22-013

☐ Evenflo Discovery Adjust Right 212

☐ Graco Infant 8457

☐ Graco Snugride

☐ Peg Perego Viaggio

Section C

☐ Britax Roundabout E9L02

☐ Cosco Touriva 02519

☐ Evenflo Medallion 254

☐ Evenflo Tribute V 379

☐ Graco ComfortSport

- [ ] 25. Low risk deployment test with 3-year-old dummy (Part 572, Subpart P) in the following positions:
  - [ ] Position 1 (rearmost, lowest seat position)
  - [ ] Position 2 (mid-height seat position)
- [ ] 26. Low risk deployment test with 6-year-old dummy (Part 572, Subpart N) in the following positions:
  - [ ] Position 1(rearmost, lowest seat position)
  - [ ] Position 2 (mid-height seat position)
- [ ] 27. Low risk deployment test with 5th female dummy (Part 572, Subpart O) in the following positions:
  - [ ] Position 1 (mid-height seat position)
  - [ ] Position 2 (mid-height seat position)
- [X] 28. Impact Tests
  - [ ] Frontal Oblique Impact Angle: Test Speed:
    - [ ] Belted 50th male dummy driver and passenger (0 to 48 kmph) (S5.1.1(a))
    - [ ] Unbelted 50th male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a)(1))
    - [ ] Unbelted 50th male dummy driver and passenger (32 to 56 kmph) (S5.1.2(a)(2) or S5.1.2(b))
  - [X] Frontal 0° - Test Speed: 55.1 kmph
    - [ ] Belted 50th male dummy driver (0 to 56 kmph (S5.1.1(b)(2))
    - [ ] Belted 50th male dummy passenger (0 to 56 kmph) (S5.1.1.(b)(2))
    - [X] Belted 5th female dummy driver (0 to 56 kmph) (S16.1(a)(2))
    - [X] Belted 5th female dummy passenger (0 to 56 kmph) (S16.1(a)(2))
    - [ ] Unbelted 50th male dummy driver (32 to 40 kmph) (S5.1.2(b))
    - [ ] Unbelted 50th male dummy passenger (32 to 40 kmph) (S5.1.2(b))
    - [ ] Unbelted 5th female dummy driver (32 to 40 kmph) (S16.1(b))
    - [ ] Unbelted 5th female dummy passenger (32 to 40 kmph) (S16.1(b))
  - [ ] 40% Offset 0° Belted 5th female dummy driver and passenger (0 to 56 kmph) (S18.1) Test Speed:
- [ ] 29. FMVSS 204 Indicant Test
- [X] 30. FMVSS 212 Indicant Test
- [X] 31. FMVSS 219 Indicant Test
- [ ] 32. FMVSS 301 Frontal Test
- [X] 33. FMVSS 305 Frontal Indicant Test

DATA SHEET 2

REPORT OF VEHICLE CONDITION

Test Vehicle: 2024 Vinfast VF8 NHTSA No.: C20244703
Test Program: FMVSS 208 Compliance Test Date: 11/6/24

CONTRACT NO.: 693JJ919D000012 Date: 11/13/24
FROM (Lab and rep name): MGA Research Corporation
TO: NHTSA, OVSC, NVS-220

PURPOSE: ( ) Initial Receipt ( ) Received via Transfer (X) Present vehicle condition

MODEL YEAR/MAKE/MODEL/BODY STYLE:	2024 Vinfast VF8 MPV		
MANUFACTURE DATE:	03/2023		
NHTSA NO.	C20244703	GVWR:	2905 kg (6404 lbs)
BODY COLOR:	Vinfast White	GAWR (Fr):	1425 kg (3142 lbs)
VIN:	RLLV1AEB2RH004428	GAWR (Rr):	1590 kg (3505 lbs)

ODOMETER READINGS: ARRIVAL (miles): 30 DATE: 10/4/24
COMPLETION (miles): 32 DATE: 11/6/24

PURCHASE PRICE: ($) 49,320

DEALER'S NAME: Leith Vinfast
2000 Autopark Blvd, Apex, NC 27511

A. All options listed on window sticker are present on the test vehicle:
_X_ Yes ___ No
B. Tires and wheel rims are new and the same as listed: _X_ Yes ___ No
C. There are no dents or other interior or exterior flaws: _X_ Yes ___ No
D. The vehicle has been properly prepared and is in running condition:
_X_ Yes ___ No
E. Keyless remote is available and working: _X_ Yes ___ No
F. The glove box contains an owner's manual, warranty document, consumer information, and extra set of keys: _X_ Yes ___ No
G. Proper fuel filler cap is supplied on the test vehicle: _X_ Yes ___ No
H. Using permanent marker, identify vehicle with NHTSA number and FMVSS test type(s) on roof line above driver door or for school buses, place a placard with NHTSA number inside the windshield and to the exterior front and rear side of bus:
_X_ Yes ___ No
I. Place vehicle in storage area: _X_ Yes ___ No
J. Inspect the vehicle's interior and exterior, including all windows, seats, doors, etc. to confirm that each system is complete and functional per the manufacturer's specifications. Any damage, misadjustment, or other unusual condition that could influence the test program or test results shall be recorded. Report any abnormal condition to the NHTSA COTR before beginning any test:
_X_ Vehicle OK ___ Conditions reported below in comment section

Identify the letter above to which any of the following comments apply.
Comments:_____

_____

REPORT OF VEHICLE CONDITION AT THE COMPLETION OF TESTING

LIST OF FMVSS TESTS PERFORMED BY THIS LAB: FMVSS 208, 212, 219, 305

VEHICLE: 2024 Vinfast VF8 NHTSA NO.: C20244703

REMARKS:

Equipment that is no longer on the test vehicle as noted on previous page:

Tire Repair Kit, Cargo Area Carpet and Organizer, Trunk Trim

Explanation for equipment removal:

Components removed for instrumentation installation and to meet target weight.

Test Vehicle Condition:

35 mph frontal impact damage- front suspension & structure damaged, hood & front quarter panels damaged, air bags & pretensioners deployed

RECORDED BY:	Jose Galvez	DATE:	11/13/24
APPROVED BY:	David Winkelbauer	DATE:	11/13/24

########## ##########

RELEASE OF TEST VEHICLE

The vehicle described above is released from MGA to be delivered to:

Date: Time: Odometer:

Lab Rep's Signature:

Title:

Carrier/Customer Rep:

Date:

DATA SHEET 3

CERTIFICATION LABEL AND TIRE PLACARD INFORMATION

Test Vehicle: 2024 Vinfast VF8
Test Program: FMVSS 208 Compliance
Test Technician: Chad Williams

NHTSA No.: C20244703
Test Date: 11/6/24

Certification Label (Part 567)	
Manufacturer:	Vinfast Trading and Production Joint Stock Company
Date of Manufacture:	03/2023
VIN:	RLLV1AEB2RH004428
Vehicle Certified As (Pass. Car/MPV/Truck/Bus):	MPV
Front Axle GVWR:	1425 kg (3142 lbs)
Rear Axle GVWR:	1590 kg (3505 lbs)
Total GVWR:	2905 kg (6404 lbs)

Tire Placard for Motor Vehicles with GVWR of 10,000 lb or Less and Passenger Cars (571.110)	
Vehicle Capacity Weight:	450 kg (992 lbs)
Designated Seating Capacity Front:	2
Designated Seating Capacity Rear:	3
Total Designated Seating Capacity:	5
Recommended Cold Tire Inflation Pressure Front:	260 kpa (38 psi)
Recommended Cold Tire Inflation Pressure Rear:	280 kpa (41 psi)
Recommended Tire Size:	225/55R19
Tire Size on Vehicle:	225/55R19

Signature: Chad Williams Date: 11/6/24

DATA SHEET 32

VEHICLE WEIGHT, FUEL TANK, AND ATTITUDE DATA

Test Vehicle: 2024 Vinfast VF8
Test Program: FMVSS 208 Compliance
Test Technician: Chad Williams

NHTSA No.: C20244703
Test Date: 11/6/24

IMPACT ANGLE:	0°							
BELTED DUMMIES (YES/NO):	YES							
TEST SPEED:		32 to 40 kmph		0 to 48 kmph	X	0 to 56 kmph		
DRIVER DUMMY:	X	5th female			50th male			
PASSENGER DUMMY:	X	5th female			50th male			

NA	1.	Fill the transmission with transmission fluid to the satisfactory range.
NA	2.	Drain fuel from vehicle.
NA	3.	Run the engine until fuel remaining in the fuel delivery system is used and the engine stops.
NA	4.	Record the useable fuel tank capacity supplied by the COTR.
NA		Useable Fuel Tank Capacity supplied by COTR: Not Applicable Electric Vehicle
NA	5.	Record the fuel tank capacity supplied in the owner's manual.
NA		Useable Fuel Tank Capacity in owner's manual: Not Applicable Electric Vehicle
NA	6.	Using purple dyed Stoddard solvent having the physical and chemical properties of Type 1 solvent or cleaning fluid, Table 1, ASTM Standard D484-71, "Standard Specifications for Hydrocarbon Dry-cleaning Solvents," or gasoline, fill the fuel tank.
NA		Amount Added: Not Applicable Electric Vehicle
X	7.	Fill the coolant system to capacity.
X	8.	Fill the engine with motor oil to the Max. mark on the dip stick.
X	9.	Fill the brake reservoir with brake fluid to its normal level.
X	10.	Fill the windshield washer reservoir to capacity.
X	11.	Inflate the tires to the tire pressure on the tire placard. If no tire placard is available, inflate the tires to the recommended pressure in the owner's manual.

Tire placard pressure:	RF:	38 psi	LF:	38 psi	RR:	41 psi	LR:	41 psi
Owner's manual pressure:	RF:	38 psi	LF:	38 psi	RR:	41 psi	LR:	41 psi
Actual inflated pressure:	RF:	38 psi	LF:	38 psi	RR:	41 psi	LR:	41 psi

X	12.	Record the vehicle weight at each wheel to determine the unloaded vehicle weight (UVW), i.e. "as delivered" weight).

Right Front (kg):	600.1	Right Rear (kg):	627.8
Left Front (kg):	642.3	Left Rear (kg):	586.0
Total Front (kg):	1242.4	Total Rear (kg):	1213.8
% Total Weight:	50.6	% Total Weight:	49.4
UVW = TOTAL FRONT PLUS TOTAL REAR (KG):			2456.2

X	13.	UVW Test Vehicle Attitude: (All dimensions in millimeters)
X	13.1	Mark a point on the vehicle above the center of each wheel.
X	13.2	Place the vehicle on a level surface.
X	13.3	Measure perpendicular to the level surface to the 4 points marked on the body and record the measurements.

RF:	792	LF:	785	RR:	787	LR:	784

X 14. Calculate the Rated Cargo and Luggage Weight (RCLW): 110 kg

X 14.1 Does the vehicle have the vehicle capacity weight (VCW) on the certification label or tire placard?

X [X] Yes, go to 14.3

[ ] No, go to 14.2

[ ] 14.2 VCW = Gross Vehicle Weight - UVW

VCW = _____ - _____ = _____

X 14.3 VCW = 450 kg (992 lbs)

X 14.4 Does the certification or tire placard contain the Designated Seating Capacity (DSC)?

[X] Yes, go to 14.6

[ ] No, go to 14.5 and skip 14.6

[ ] 14.5 DSC = Total number of seat belt assemblies = _____

X 14.6 DSC = 5

X 14.7 RCLW = VCW - (68 kg x DSC) = 450 kg - (68 kg x 5) = 110 kg

X 14.8 Is the vehicle certified as a truck, MPV or bus (see the certification label on the door jamb)?

[X] Yes, if the calculated RCLW is greater than 136 kg, use 136 kg as the RCLW. (S8.1.1)

[ ] No, use the RCLW calculated in 14.7

X 15. Fully Loaded Weight (100% fuel fill): 2663.9 kg

X 15.1 Place the appropriate test dummy in both front outboard seating positions.

Driver: X 5th female __ 50th male
Passenger: X 5th female __ 50th male

X 15.2 Load the vehicle with the RCLW from 14.7 or 14.8 whichever is applicable.

X 15.3 Place the RCLW in the cargo area. Center the load over the longitudinal centerline of the vehicle. (S8.1.1 (d))

X 15.4 Record the vehicle weight at each wheel to determine the Fully Loaded Weight.

Right Front (kg):	624.2	Right Rear (kg):	713.0
Left Front (kg):	648.6	Left Rear (kg):	678.1
Total Front (kg):	1272.8	Total Rear (kg):	1391.1
% Total Weight:	47.8	% Total Weight:	52.2
% GVW	49.1	% GVW	54.7
(% GVW = Axle GVW divided by Vehicle GVW)			
Fully Loaded Weight = Total Front Plus Total Rear (kg):			2663.9

X 16. Fully Loaded Test Vehicle Attitude: (All dimensions in millimeters)

X 16.1 Place the vehicle on a level surface.

X 16.2 Measure perpendicular to the level surface to the 4 points marked on the body (see 13.1 above) and record the measurements.

RF:	786	LF:	785	RR:	774	LR:	780

NA 17. Drain the fuel system.

NA 18. Using purple dyed Stoddard solvent having the physical and chemical properties of Type 1 solvent or cleaning fluid, Table 1, ASTM Standard D484-71, "Standard Specifications for Hydrocarbon Dry-cleaning Solvents," fill the fuel tank to 92 - 94 percent of useable capacity.

NA Fuel tank capacity x .94 = 0 liters (0 gallons) Not Applicable Electric Vehicle

NA Amount added: 0 liters (0 gallons) Not Applicable Electric Vehicle

NA 19. Crank the engine to fill the fuel delivery system with Stoddard solvent.

X 20. Calculate the test weight range.

X 20.1 Calculated Weight = UVW (see 12 above) + RCLW (see 14 above) + 2x(dummy weight)

2664.2 kg = 2456.2 kg + 110.0 kg + 98.0 kg

X 20.2 Test Weight Range = Calculated Weight (- 4.5 kg, - 9 kg.)

Max. Test Weight = Calculated Test Weight - 4.5 kg = 2659.7 kg

Min. Test Weight = Calculated Test Weight - 9 kg = 2655.2 kg

X 21. Remove the RCLW from the cargo area.

X 22. Drain transmission fluid, engine coolant, motor oil, and windshield washer fluid from the test vehicle so that Stoddard solvent leakage from the fuel system will be evident.

X 23. Vehicle Components Removed For Weight Reduction:
Tire Repair Kit, Cargo Area Carpet and Organizer, Trunk Area Trim Panels

X 24. Secure the equipment and ballast in the load carrying area and distribute it, as nearly as possible, to obtain the proportion of axle weight indicated by the gross axle weight ratings and center it over the longitudinal centerline of the vehicle.

X 25. If necessary, add ballast to achieve the actual test weight.

[ ] N/A

[X] Weight of Ballast: 45.4 kg

X 26. Ballast, including test equipment, must be contained so that it will not shift during the impact event or interfere with data collection or interfere with high-speed film recordings or affect the structural integrity of the vehicle or do anything else to affect test results. Care must be taken to assure that any attachment hardware added to the vehicle is not in the vicinity of the fuel tank or lines.

X 27. Record the vehicle weight at each wheel to determine the actual test weight.

Right Front (kg):	631.4	Right Rear (kg):	692.6
Left Front (kg):	635.0	Left Rear (kg):	699.9
Total Front (kg):	1266.4	Total Rear (kg):	1392.5
% Total Weight:	47.6	% Total Weight:	52.4
% GVW	49.1	% GVW	54.7
(% GVW = Axle GVW divided by Vehicle GVW)			
TOTAL FRONT PLUS TOTAL REAR (kg):			2658.9

X 28. Is the test weight between the Max. Weight and the Min. Weight (See 20.2)?

[X] Yes

[ ] No, explain why not.

X 29. Test Weight Vehicle Attitude: (all dimensions in millimeters)

X 29.1 Place the vehicle on a level surface.

X 29.2 Measure perpendicular to the level surface to the 4 points marked on the body (see 13 above) and record the measurements.

RF:	789	LF:	785	RR:	774	LR:	780

[X] 30. Summary of test attitude

[X] 30.1 AS DELIVERED:

RF:	792	LF:	785	RR:	787	LR:	784

AS TESTED:

RF:	789	LF:	785	RR:	774	LR:	780

FULLY LOADED:

RF:	786	LF:	785	RR:	774	LR:	780

[X] 30.2 Is the “as tested” test attitude equal to or between the “fully loaded” and “as delivered” attitude?

[X] Yes

[ ] No, explain why not.

REMARKS:

Signature: Chad Wilkin Date: 11/6/24

I certify that I have read and performed each instruction.

DATA SHEET 33

VEHICLE ACCELEROMETER LOCATION AND MEASUREMENT

Test Vehicle: 2024 Vinfast VF8
Test Program: FMVSS 208 Compliance
Test Technician: Chad Williams

NHTSA No.: C20244703
Test Date: 11/6/24

IMPACT ANGLE:	0°							
BELTED DUMMIES (YES/NO):	YES							
TEST SPEED:		32 to 40 kmph		0 to 48 kmph	X	0 to 56 kmph		
DRIVER DUMMY:	X	5th female			50th male			
PASSENGER DUMMY:	X	5th female			50th male			

X 1. Find the location where the vertical plane parallel to the longitudinal centerline of the vehicle and through the center of the left front outboard seating position intersects the left rear seat cross member. Install an accelerometer at this intersection on the rear seat cross member to record x-direction accelerations. Record the location on the following chart.

X 2. Find the location where the vertical plane parallel to the longitudinal centerline of the vehicle and through the center of the right front outboard seating position intersects the right rear seat cross member. Install an accelerometer at this intersection on the rear seat cross member to record x-direction accelerations. Record the location on the following chart.

X 3. Find the location where a vertical plane through the longitudinal centerline of the vehicle and a vertical transverse plane through the center of the two wheels on opposite sides of the engine intersect at the top of the engine. Install an accelerometer at this intersection to record x-direction accelerations. Record the location on the following chart.

X 4. Find the location where a vertical plane through the longitudinal centerline of the vehicle and a vertical transverse plane through the center of the two wheels on opposite sides of the engine intersect the bottom of the engine. Install an accelerometer at this intersection to record x-direction accelerations. Record the location on the following chart.

X 5. Install an accelerometer on the right front brake caliper to record x-direction accelerations. Record the location on the following chart.

X 6. Find the location where a vertical plane through the longitudinal centerline of the vehicle intersects the top of the instrument panel. Install an accelerometer at this intersection to record x-direction accelerations. Record the location on the following chart.

X 7. Install an accelerometer on the left front brake caliper to record x-direction accelerations. Record the location on the following chart.

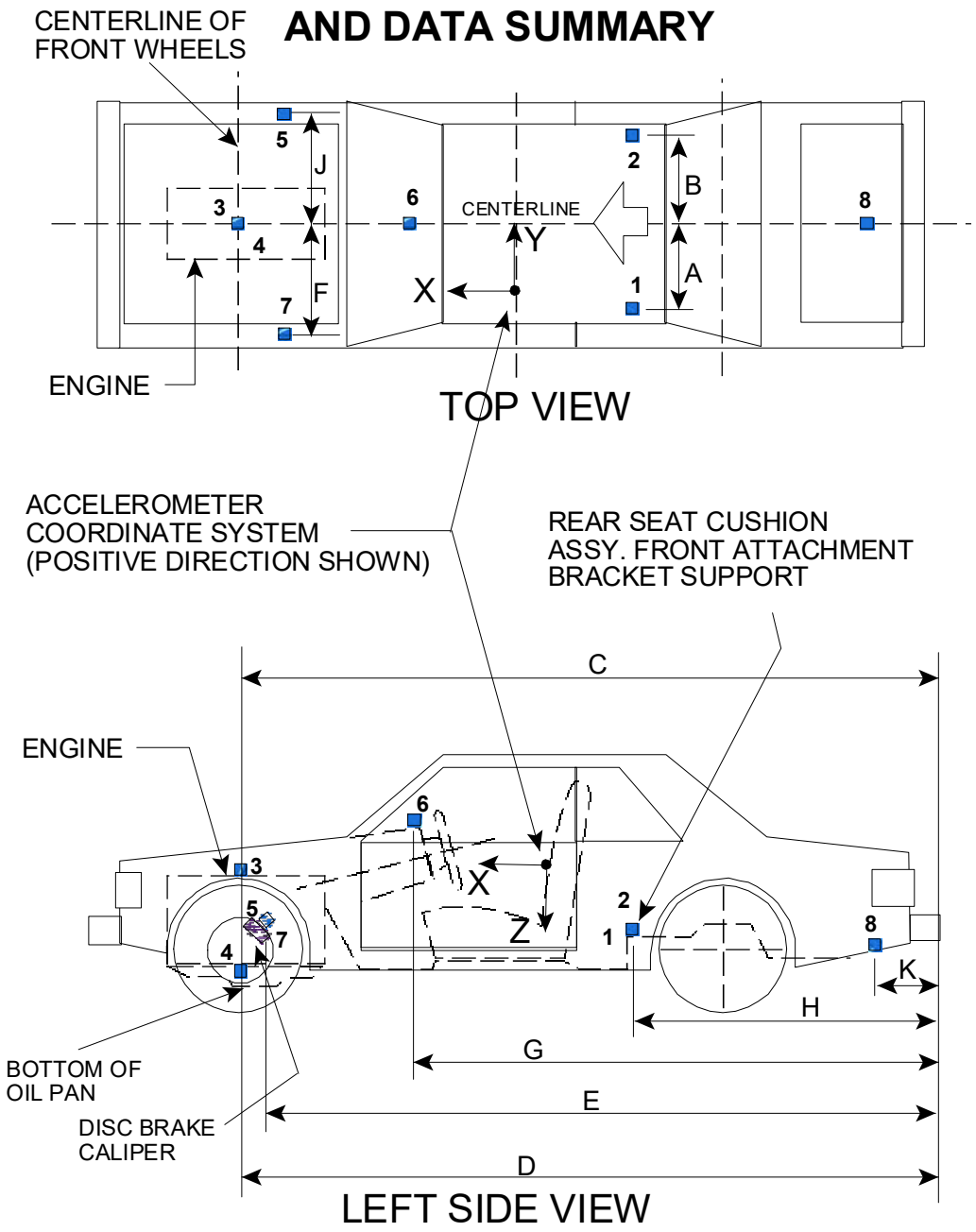
X 8. Find the location where a vertical plane through the longitudinal centerline of the vehicle intersects the floor of the trunk. Install an accelerometer on the trunk floor at this intersection to record z-direction accelerations. Record the location on the following chart.

REMARKS:

I certify that I have read and performed each instruction.

Signature: Chad Williams Date: 11/6/24

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY



Dimensions Corresponding To The Letters “A” Through “K” (Excluding “I”) Are Recorded In The Table On The Following Page.
Accelerometers Corresponding To The Numbers 1 Through 8 Are Specified On The Preceding Page.

VEHICLE ACCELEROMETER LOCATION AND MEASUREMENTS

DIMENSION	LENGTH (mm)	
PRETEST VALUES		
A (LH Rear Seat Xmbr)	430	
B (RH Rear Seat Xmbr)	430	
C (Engine Top)	4444	
D (Engine Bottom)	4025	
E (Caliper)	Right Side: 4050	Left Side: 4050
F (Left Caliper)	785	
G (IP)	3206	
H (Seat)	1891	
J (Right Caliper)	785	
K (Trunk)	980	
POST TEST VALUES		
A (LH Rear Seat Xmbr)	430	
B (RH Rear Seat Xmbr)	430	
C (Engine Top)	3788	
D (Engine Bottom)	3847	
E (Caliper)	Right Side: 3811	Left Side: 3807
F (Left Caliper)	782	
G (IP)	3061	
H (Seat)	1890	
J (Right Caliper)	781	
K (Trunk)	980	

DATA SHEET 34

PHOTOGRAPHIC TARGETS

Test Vehicle: 2024 Vinfast VF8
Test Program: FMVSS 208 Compliance
Test Technician: Chad Williams

NHTSA No.: C20244703
Test Date: 11/6/24

IMPACT ANGLE:	0°						
BELTED DUMMIES (YES/NO):	YES						
TEST SPEED:		32 to 40 kmph		0 to 48 kmph	X	0 to 56 kmph	
DRIVER DUMMY:	X	5^{th} female				50^{th} male	
PASSENGER DUMMY:	X	5^{th} female				50^{th} male	

X	1.	**FMVSS 208 vehicle targeting requirements** (See Figures 28A and 28B)
X	1.1	Targets A1 and A2 are on flat rectangular panels.
X	1.2	Three circular targets at least 90 mm in diameter and with black and yellow quadrants are mounted at the front on the outboard sides of A1 and A2. The center of each circular target is 100 mm from the one next to it.
X		Distance between targets (mm): 100 mm
X	1.3	Three circular targets at least 90 mm in diameter and with black and yellow quadrants are mounted at the back on the outboard sides of on A1 and A2. The center of each circular target is 100 mm from the one next to it.
X		Distance between targets (mm): 100 mm
X	1.4	The distance between the first circular target at the front of A1 and A2 and the last circular target at the back of A1 and A2 is at least 915 mm.
X		Distance between the first and last circular targets (mm): 915 mm
X	1.5	Firmly fix target A1 on the vehicle roof in the vertical longitudinal plane that is coincident with the midsagittal plane of the driver dummy.
X	1.6	Firmly fix target A2 on the vehicle roof in the vertical longitudinal plane that is coincident with the midsagittal plane of the passenger dummy.
X	1.7	Two circular targets (C1 and C2) at least 90 mm in diameter and with black and yellow quadrants are mounted on the outside of the driver door. The centers of each circular target are at least 610 mm apart.
X		Distance between targets (mm): 610 mm
X	1.8	Two circular targets (C1 and C2) at least 90 mm in diameter and with black and yellow quadrants are mounted on the outside of the passenger door. The centers of each circular target are at least 610 mm apart.
X		Distance between targets (mm): 610 mm
X	1.9	Place tape with squares having alternating colors on the top portion of the steering wheel.
X	1.10	Chalk the bottom portion of the steering wheel.
X	1.11	Is this an offset test?
		Yes, continue with this section
X		**No, go to 2.**
	1.12	Measure the width of the vehicle.
		Vehicle width (mm):
	1.13	Find the centerline of the vehicle. (½ of the vehicle width)
	1.14	Find the line parallel to the centerline of the vehicle and 0.1 x vehicle width from the centerline of the vehicle.
	1.15	Apply 25 mm wide tape with alternating black and yellow squares parallel to and on each side of the line found in 1.14. The edge of each tape shall be 50 mm from the line found in 1.14. The tape shall extend from the bottom of the bumper to the front edge of the windshield. (Figure 28D)

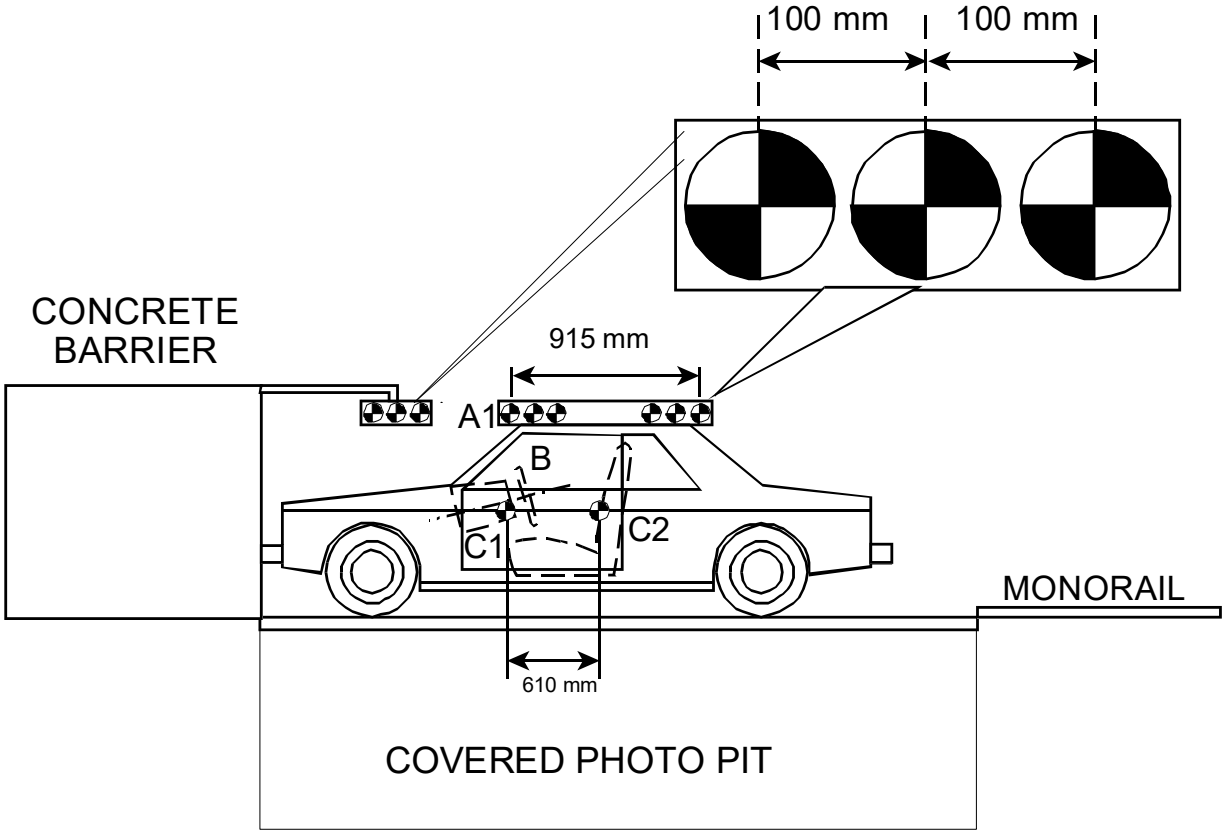
X	2.	**Barrier Targeting**
X	2.1	Fix two stationary targets D1 and D2 to the barrier as shown in the Figure 28A. One target is in the vertical longitudinal plane that is coincident with the midsagittal plane of the driver dummy. The other is in the vertical longitudinal plane that is coincident with the midsagittal plane of the passenger dummy.
X	2.2	Targets D1 and D2 are on a rectangular panel.
X	2.3	Three circular targets at least 90 mm in diameter and with black and yellow quadrants are mounted on the sides of the rectangular panel away from the longitudinal centerline of the vehicle. The center of each circular target is 100 mm from the one next to it.
X		Distance between circular targets on D1 (mm): 100 mm
X		Distance between circular targets on D2 (mm): 100 mm
X	3.	**FMVSS 208 Dummy Targeting Requirements**
X	3.1	Place a circular target with black and yellow quadrants on both sides of the driver dummy head as close as possible to the center of gravity of the head in the x and z direction (relative to the measuring directions of the accelerometers).
X	3.2	Place a circular target with black and yellow quadrants on both sides of the passenger dummy head as close as possible to the center of gravity of the head in the x and z direction (relative to the measuring directions of the accelerometers).
X	3.3	Place a circular target with black and yellow quadrants on the outboard shoulder of the driver dummy. Place the target as high up on the arm as possible at the intersection of the arm and shoulder. The sleeve of the shirt on the dummy may be cut to make the target visible, but do not remove any material.
X	3.4	Place a circular target with black and yellow quadrants on the outboard shoulder of the passenger dummy. Place the target as high up on the arm as possible at the intersection of the arm and shoulder. The sleeve of the shirt on the dummy may be cut to make the target visible, but do not remove any material.
X	4.	**FMVSS 204 Targeting Requirements**
X	4.1	Is an FMVSS 204 indicant test ordered on the “COTR Vehicle Work Order?”
		☐ Yes, continue with this form.
		X No, this form is complete.
	4.2	Resection panel (Figure 28C)
	4.2.1	The panel deviates no more than 6 mm from perfect flatness when suspended vertically
	4.2.2	The 8 targets on the panel are circular targets at least 90 mm in diameter and with black and yellow quadrants.
	4.2.3	The center of each of the 4 outer targets are placed within 1 mm of the corners of a square measuring 914 mm on each side.
	4.2.4	Locate another square with 228 mm sides and with the center of this square coincident with the center of the 914 mm square.
	4.2.5	The center of the 4 inner targets are placed at the midpoints of each of the 228 mm sides.
	4.3	Place a circular target at least 90 mm in diameter and with black and yellow quadrants on a material (cardboard, metal, etc.) that can be taped to the top of the steering column.
	4.4	Tape the target from 4.3 to the top of the steering column in a manner that does not interfere with the movement of the steering column in a crash.

REMARKS:

Signature: Chad Wilkins Date: 11/6/24

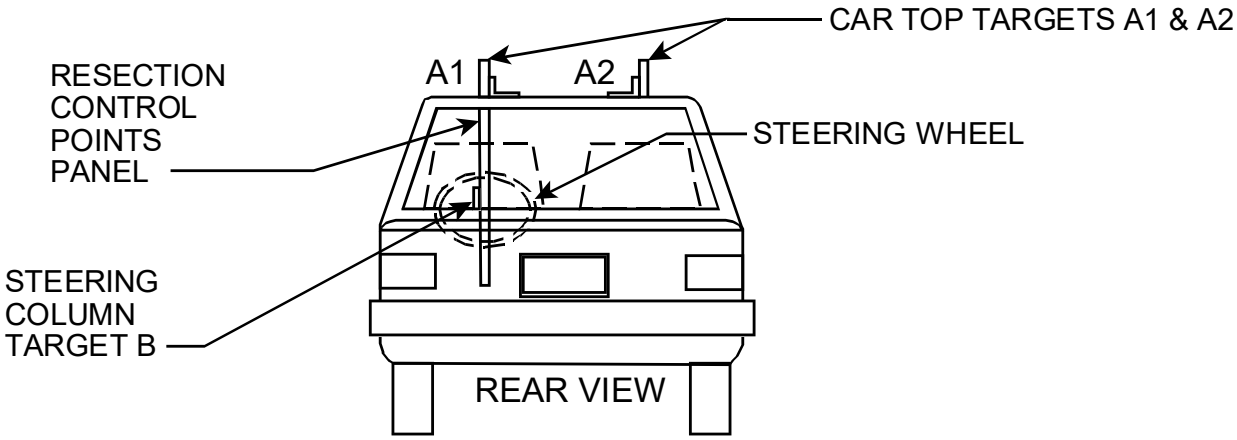
I certify that I have read and performed each instruction.

REFERENCE PHOTO TARGETS

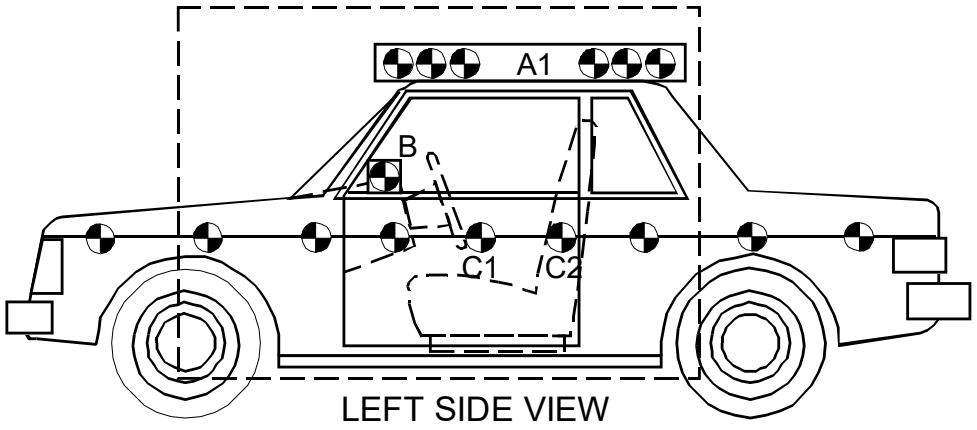


LEFT SIDE VIEW

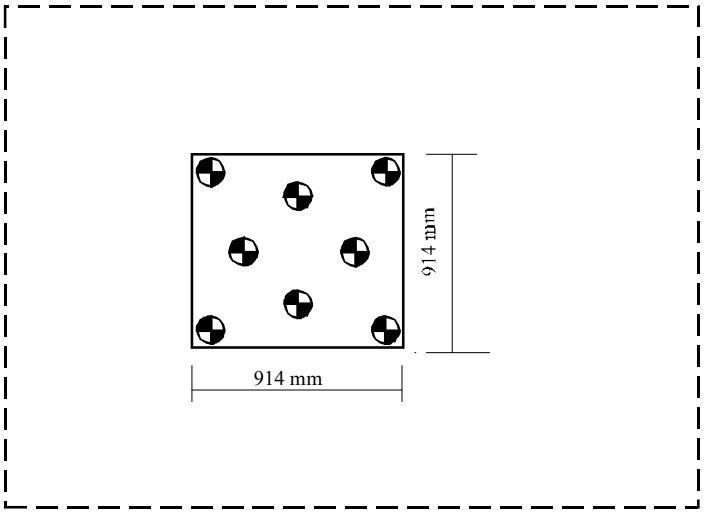
RESECTION PANEL TARGETING ALIGNMENT



TEST RUN STEERING COLUMN CAMERA VIEW OF TYPICAL TIME ZERO VEHICLE POSITION



PRE-RUN STEERING COLUMN HIGH SPEED CAMERA VIEW



LEFT SIDE VIEW

DATA SHEET 35

CAMERA LOCATIONS

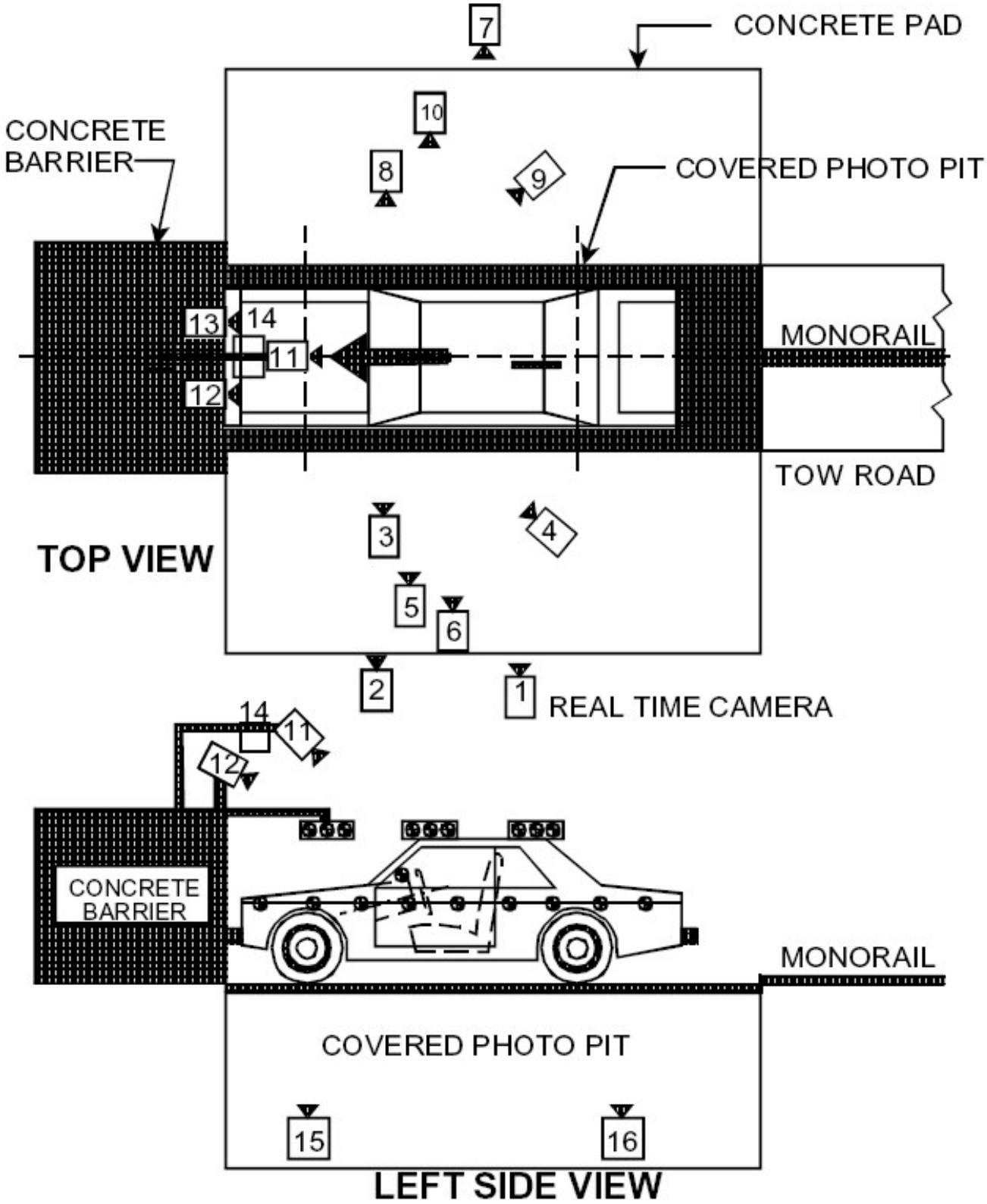
Test Vehicle: 2024 Vinfast VF8
Test Program: FMVSS 208 Compliance

NHTSA No.: C20244703
Test Date: 11/6/24
Time: 9:32 am

CAMERA NO.	VIEW	CAMERA POSITIONS (mm) *			LENS (mm)	SPEED (fps)
		X	Y	Z		
1	Real Time Left Side View				13	30
2	Left Side View (Barrier face to front seat backs)	1270	-5246	1450	24	1000
3	Left Side View (Driver)	1730	-6950	2210	50	1000
4	Left Side View (B-post aimed toward center of steering wheel)	7520	-5750	2270	75	1000
5	Left Side View (Steering Column)	680	-5360	1210	50	1000
6	Left Side View (Steering Column)	780	-5360	770	50	1000
7	Right Side View (Overall)	2080	5610	1480	16	1000
8	Right Side View (Passenger)	1660	6860	2130	50	1000
9	Right Side View (Angle)	7730	5420	2270	75	1000
10	Right Side View (Front door)	1090	5450	1480	24	1000
11	Front View Windshield	-100	0	2310	11	1000
12	Front View Driver	-50	-370	2230	25	1000
13	Front View Passenger	-50	370	2230	25	1000
14	Overhead Barrier Impact View	3200	0	6820	11	1000
15	Pit Camera Engine View	980	0	-3340	24	1000
16	Pit Camera Fuel Tank View	3150	0	-3340	24	1000
17	Driver Over the Shoulder View (Onboard)				12	1000
18	Passenger Over the Shoulder View (Onboard)				12	1000

*COORDINATES:
+X - forward of impact plane
+Y - right of monorail centerline
+Z - above ground level

CAMERA POSITIONS FOR FMVSS 208



DATA SHEET 36 - APPENDIX G

DUMMY POSITIONING PROCEDURES

FOR 5th PERCENTILE FEMALE DRIVER TEST DUMMY CONFORMING TO SUBPART O OF PART 572

Test Vehicle: 2024 Vinfast VF8 NHTSA No.: C20244703
Test Program: FMVSS 208 Compliance Test Date: 11/6/24
Test Technician: Dane Wieting

IMPACT ANGLE:	0°						
BELTED DUMMIES (YES/NO):	YES						
TEST SPEED:		32 to 40 kmph		0 to 48 kmph	X	0 to 56 kmph	
DRIVER DUMMY:	X	5th female				50th male	
PASSENGER DUMMY:	X	5th female				50th male	

1. Seat Position

X 1.1 Position the seat's adjustable lumbar supports so that the lumbar supports are in the lowest, retracted or deflated adjustment positions. (S16.2.10.1, S20.1.9.1, S20.4.1, S22.1.7.1)
X N/A – No lumbar adjustment

X 1.2 Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2, S20.1.9.2, S20.4.1, S22.1.7.1, S22.4.2.1, S22.4.3.1, S24.4.2.1, S26.2.3, S26.3.1)
X N/A – No additional support adjustment

X 1.3 Position an adjustable leg support system in its rearmost position. (8/27/04 interpretation to Toyota)
X N/A – No adjustable leg support system

X 1.4 **Mark** a point (seat cushion reference point) on the side of the seat cushion that is between 150 mm and 250 mm from the front edge of the seat cushion. (S16.3.1.12)

X 1.5 Draw a line (seat cushion reference line) through the seat cushion reference point. (S16.3.1.13)

X 1.6 Use only the controls that primarily move the seat in the fore-aft direction to move the seat cushion reference point to the rearmost position. (S16.2.10.3.1, S22.1.7.3)

X 1.7 If the seat cushion adjusts fore-aft, independent of the seat back, use only the controls that primarily move the seat cushion in the fore-aft direction to move the seat cushion reference point to the rearmost position. (S16.2.10.3.1, S20.1.9.3)
X N/A – No independent fore-aft seat cushion adjustment

X 1.8 Use any part of any control, other than the parts just used for fore-aft positioning, to determine the range of angles of the seat cushion reference line and to set the seat cushion reference line at the mid-angle. (S16.2.10.3.1)
Maximum angle: 22.9°
Minimum angle: 14.1°
Mid-angle: 18.5°

X 1.9 If the seat and/or seat cushion height is adjustable, use any part of any control other than the parts which primarily move the seat or seat cushion fore-aft, to put the seat cushion reference point in its lowest position with the seat cushion reference line angle at the mid-angle found in 1.8. (S16.2.10.3.1)
__N/A – No seat height adjustment

X 1.10 Use only the controls that primarily move the seat in the fore-aft direction to verify the seat is in the rearmost position.

X 1.11 Use only the controls that primarily move the seat in the fore-aft direction to **mark** the fore-aft seat positions. **Mark** each position so that there is a visual indication when the seat is at a particular position. For manual seats, move the seat forward one detent at a time and **mark** each detent. For power seats, **mark** only the rearmost, middle, and foremost positions. Label three of the positions with the following: F for foremost, M for mid-position (if there is no mid-position, label the closest adjustment position to the rear of the mid-point), and R for rearmost.

X 1.12 Use only the controls that primarily move the seat in the fore-aft direction to place the seat in the rearmost position.

X 1.13 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually **mark** the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.8. (S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S22.4.3.1, S24.1.2, S24.3.1, S24.4.3.1, S26.2.3, S26.3.1)
__N/A – No seat height adjustment. Go to 1.18

X 1.14 Use only the controls that primarily move the seat and/or seat cushion in the fore-aft direction to place the seat in the mid-fore-aft position.

X 1.15 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually **mark** the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.8. (S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S24.1.2, S24.3.1)

X 1.16 Use only the control that change the seat in the fore-aft direction to place the seat in the foremost position. (S16.2.10.3.2)

X 1.17 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually **mark** the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.8. (S16.2.10.3.3, S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S24.1.2, S24.3.1)

X 1.18. Is the seat a bucket seat?
X Yes, go to 1.19 and skip 1.20
__No, go to 1.20 and skip 1.19

X 1.19 Bucket seats:
Locate and **mark** for future reference the longitudinal centerline of the seat cushion. The intersection of the vertical longitudinal plane that passes through the SgRP and the seat cushion upper surface determines the longitudinal centerline of a bucket seat cushion. (S16.3.1.10 & S20.1.10)

__1.20 Bench seats (complete ONLY the one that is applicable to the seat being marked): Locate and **mark** for future reference the longitudinal line on the seat cushion that marks the intersection of the vertical longitudinal plane through the centerline of the steering wheel and the seat cushion upper surface.

2. Head Restraint Position

__N/A Vehicle contains automatic head restraints.
__N/A, there is no head restraint adjustment Go to 3

X 2.1 Adjust the head restraint to its lowest position. (S16.2.10.2, S20.1.9.6, S20.4.1, S22.1.7.6, S22.4.2.1, S22.4.3.1, S24.4.3.1, S26.2.3, S26.3.1)

X 2.2 All adjustments of the head restraint shall be used to position it full forward. For example, if it rotates, rotate it such that the head restraint extends as far forward as possible. **Mark** the foremost position. (S16.2.10.2 & S16.3.4.4 & S20.1.9.6, S20.4.1, S22.4.2.1, S22.4.3.1, S24.4.3.1, S26.2.3, S26.3.1)

X 2.3 Measure the vertical distance from the top most point of the head restraint to the bottom most point. Locate and **mark** a horizontal plane through the midpoint of this distance. (S16.3.4.3)

Vertical height of head restraint: 200 mm
Mid-point height: 100 mm

X 3. Is the **steering wheel** adjustable up and down and/or in and out?

X Yes – go to 3.1
__No – Go to 4

X 3.1. Find and **mark** for future reference each up and down position. Label three of the positions with the following: H for highest, M for mid-position (if there is no mid-position, label the next lowest adjustment position), and L for lowest.
__N/A – steering wheel is not adjustable up and down

X 3.2. Find and **mark** for future references each in and out position. Label three of the Positions with the following: F for foremost, M for mid-position (if there is no mid-position, label the next rearmost adjustment position), and R for rearmost.
__N/A – steering wheel is not adjustable in and out.

X 3.3. Use the markings to position the steering controls in the mid-position or if applicable next lowest detent position. (S16.2.9)

X 4. Place the SCRP in the full rearward, mid-height position, and mid-seat cushion angle, determined in Item 1. (S16.3.2.1.1)

X 5. If the vehicle has an adjustable accelerator pedal, place it in the full forward position. (S16.3.2.2.1)
X N/A accelerator pedal not adjustable

X 6. Fully recline the seat back. (S16.3.2.1.2)
__ N/A seat back not adjustable.

X 7. Place the dummy in the seat with the legs at an angle of 120 degrees to the thighs. The calves should not be touching the seat cushion. (S16.3.2.1.2)

X 8. Position the dummy in the seat such that the midsagittal plane is coincident with the longitudinal seat cushion markings as determined in Item 1.19 or 1.20. (S16.3.2.1.3 and S16.3.2.1.4)

X 9. Hold down the dummy's thighs and push rearward on the upper torso to maximize the pelvic angle. (S16.3.2.1.5)

X 10. Set the angle between the legs and the thighs to 120 degrees. (S16.3.2.1.6)

X 11. Set the transverse distance between the centers of the front of the knees at 160 to 170 mm. (6.3 to 6.7 inches) Center the knee separation with respect to the longitudinal seat cushion marking as determined in Item 1.19 or 1.20. (S16.3.2.1.6)

Record Knee Separation: 165 mm

X 12. Push rearward on the dummy's knees until the pelvis contacts the seat back, or the backs of the calves contact the seat cushion, whichever occurs first. (S16.3.2.1.6)
__ Pelvis contacted seat back.
X Calves contacted seat cushion.

X 13. Gently rock the upper torso ± 5 degrees (approximately 51 mm (2 inches)) side-to-side three times. (S16.3.2.1.7)

X 14. If needed, extend the legs until the feet do not contact the floor pan. The thighs should be resting on the seat cushion. (S16.3.2.1.8)

X 15. Position the right foot until the foot is in line with a longitudinal vertical plane passing through the center of the accelerator pedal. Maintain the leg and thigh in a vertical plane. (S16.3.2.1.8)

X 16. Rotate the left leg and thigh laterally to equalize the distance between each knee and the longitudinal seat cushion marking as determined in Item 1.19 or 1.20. (S16.3.2.1.8)

X 17. Attempt to return the seat to the foremost fore-aft position, mid-height, and seat cushion mid-angle as determined in Item 1. The foot may contact and depress the accelerator and/or change the angle of the foot with respect to the leg. (S16.3.2.1.8)
X Foremost position achieved. Proceed to step 22.
__ Foremost not achieved because of foot interference. Proceed to step 19.
__ Foremost not achieved because of steering wheel contact.

__ 18. If either of the dummy's legs contact the steering wheel, move the steering wheel up the minimum amount required to avoid contact. If the steering wheel is not adjustable separate the knees the minimum required to avoid contact. (S16.3.2.1.8)
__N/A- there was no leg contact
__Steering wheel repositioned
__Knees separated

__19. If the left foot interferes with the clutch or brake pedals, rotate the left foot about the leg to provide clearance. If this is not sufficient, rotate the thigh outboard at the hip the minimum amount required for clearance. (S16.3.2.1.8)
__ N/A, No foot interference with pedals.
__ Foot adjusted to provide clearance.
__ Foot and Thigh adjusted to provide clearance.

__20. Continue to move the seat. Use seat controls to line up the seat markings determined during item 1 to set the foremost fore-aft position, mid-height position and the seat cushion mid-angle. If the dummy contacts the interior move the seat rearward until a maximum clearance of 5 mm (0.2 inches) is achieved or the seat is in the closest detent position that does not cause dummy contact. (S16.3.2.1.8)
__Foremost, mid-height position and the seat cushion mid-angle reached
__Dummy contact. Clearance set at maximum of 5 mm
Measured Clearance:_____
__Dummy Contact. Seat set at nearest detent position.
Seat position: ___ detent positions rearward of foremost
(foremost is position zero)

__21. If the steering wheel was repositioned in step 18, return the steering wheel to the original position. If the steering wheel contacts the dummy before reaching the original position, position the wheel until a maximum clearance of 5 mm (.2 inches) is achieved, or the steering wheel is in the closest detent position that does not cause dummy contact. (S16.3.2.1.8)
__N/A Steering wheel was not repositioned.
__Original position achieved.
__Dummy contact. Clearance set at maximum of 5 mm
Measured Clearance:_____
__Dummy Contact. Steering wheel set at nearest detent position.
Steering wheel position: ___ detent positions upward of original position.
(Original position is position zero)

_X_22. If the seat back is adjustable, rotate the seat back forward while holding the thighs in place. Continue rotating the seat back forward until the transverse instrument platform of the dummy head is level ± 0.5 degrees. If the head cannot be leveled using the seat back adjustment, or the seat back is not adjustable, use the lower neck bracket adjustment to level the head. If a level position cannot be achieved, minimize the angle. (S16.3.2.1.9)
_X_Head Level Achieved. (Check all that apply)
_X_Head leveled using the adjustable seat back
__Head leveled using the neck bracket.
Head Angle: _0.1_ degrees
__Head Level NOT Achieved. (Check all that apply)
__Head adjusted using the adjustable seat back
__Head adjusted using the neck bracket.
Head Angle: _____ degrees

_X_23. Verify the pelvis is not interfering with the seat bight. (S16.3.2.1.9)
_X_No interference
__Pelvis moved forward the minimum amount so that it is not caught in the seat bight.

_X_24. Verify the dummy abdomen is properly installed. (S16.3.2.1.9)
_X_Abdomen still seated properly into dummy
__Abdomen was adjusted because it was not seated properly into dummy

_X_25. Head Angle
_X_N/A, neither the pelvis nor the abdomen were adjusted.

_X_25.1 Head still level (Go to 26)

__25.2 Head level adjusted
__Head Level Achieved. (Check all that apply)
__Head leveled using the adjustable seat back
__Head leveled using the neck bracket.
Head Angle: _____ degrees
__Head Level NOT Achieved. (Check all that apply)
__Head level adjusted using the adjustable seat back
__Head level adjusted using the neck bracket.
Head Angle: _____ degrees

_X_ 26. If the dummy torso contacts the steering wheel while performing step 22, reposition the steering wheel in the following order to eliminate contact. (S16.3.2.1.9)
_X_ N/A, No dummy torso contact with the steering wheel.

__26.1 Adjust telescoping mechanism.
__N/A No telescoping adjustment.
__Adjustment performed (fill in appropriate change)
Steering wheel moved ____ detent positions in the forward direction.
Steering wheel moved ____ mm in the forward direction.

__26.2 Adjust tilt mechanism.
__N/A No tilt adjustment.
__No adjustment performed.
__Adjustment performed. (circle one)
Steering wheel moved ____ detent positions Upward/Downward.
Steering wheel moved ____ degrees Upward/Downward

__26.3 Adjust Seat in the aft direction.
__No Adjustment performed.
__Seat moved aft ___ mm from original position.
__Seat moved aft ___ detent positions from the original position.

_X_ 27. Measure and set the pelvic angle using the pelvic angle gage TE-2504. The pelvic angle should be 20.0 degrees ± 2.5 degrees. If the pelvic angle cannot be set to the specified range because the head will not be level or because the dummy will have need major repositioning, adjust the pelvis as closely as possible to the angle range, but keep the head level. (S16.3.2.1.11)
_X_ Pelvic angle set to 20.0 degrees ± 2.5 degrees.
__Pelvic angle of 20.0 degrees not achieved, the angular difference was minimized.
_X_ Record the pelvic angle: 21.1 degrees

_X_ 28. Check the dummy for contact with the interior after completing adjustments. (S16.3.2.1.12)
_X_ No contact.
__Dummy in contact with interior.
__Seat moved aft ___ mm from the previous position.
__Seat moved aft ___ detent positions from the previous position.

_X_ 29. Check the dummy to see if additional interior clearance is obtained, allowing the seat to be moved forward. (S16.3.2.1.12)
_X_ N/A, Seat already at foremost position.
__Clearance unchanged. No adjustments required.
__Additional clearance available
__Seat moved Forward ___ mm from the previous position.
__Seat moved Forward ___ detent positions from the previous position.

_X_ 30. Driver's foot positioning, right foot. Place the foot perpendicular to the leg and determine if the heel contacts the floor pan at any leg position. If the heel contacts the floor pan proceed to step 31 otherwise, proceed to step 32. (S16.3.2.2.1)

_X_ 31. Perform the following steps until either all steps are completed, or the foot contacts the accelerator pedal. Step 31.6 shall be completed in all cases. (S16.3.2.2.1(a))

_X_ 31.1 With the rear of the heel contacting the floor pan, move the foot forward until pedal contact occurs or the foot is at the full forward position.

__ 31.2 If the vehicle has an adjustable accelerator pedal, move the pedals rearward until pedal contact occurs or the pedals reach the full rearward position.

__ 31.3 Extend the leg, allowing the heel to lose contact with the floor until the foot contacts the pedal. Do not raise the toe of the foot higher than the top of the accelerator pedal. If the foot does not contact the pedal, proceed to the next step. If pedal contact does occur, place a tapered foam block as shown in Figure G1 under the heel with the shallow part of the taper facing forward. (S16.3.2.2.3)

__ 31.4 Angle the foot to achieve contact between the foot and the pedal. If the foot does not contact the pedal, return the foot to the perpendicular orientation. If pedal contact does occur, place a tapered foam block as shown in Figure G1 under the heel with the shallow part of the taper facing forward. (S16.3.2.2.3)

__ 31.5 Align the centerline of the foot with the vertical-longitudinal plane passing through the center of the accelerator pedal. Place a tapered foam block as shown in Figure G1 under the heel with the shallow part of the taper facing forward. (S16.3.2.2.3)

_X_ 31.6 Record foot position

_X_ Pedal Contact achieved. Contact occurred at step 31.1

_X_ Heel contacts floor pan

__ Heel set _____ mm from floor pan.

__ Pedal Contact not achieved. Heel set _____ mm from the floor pan.

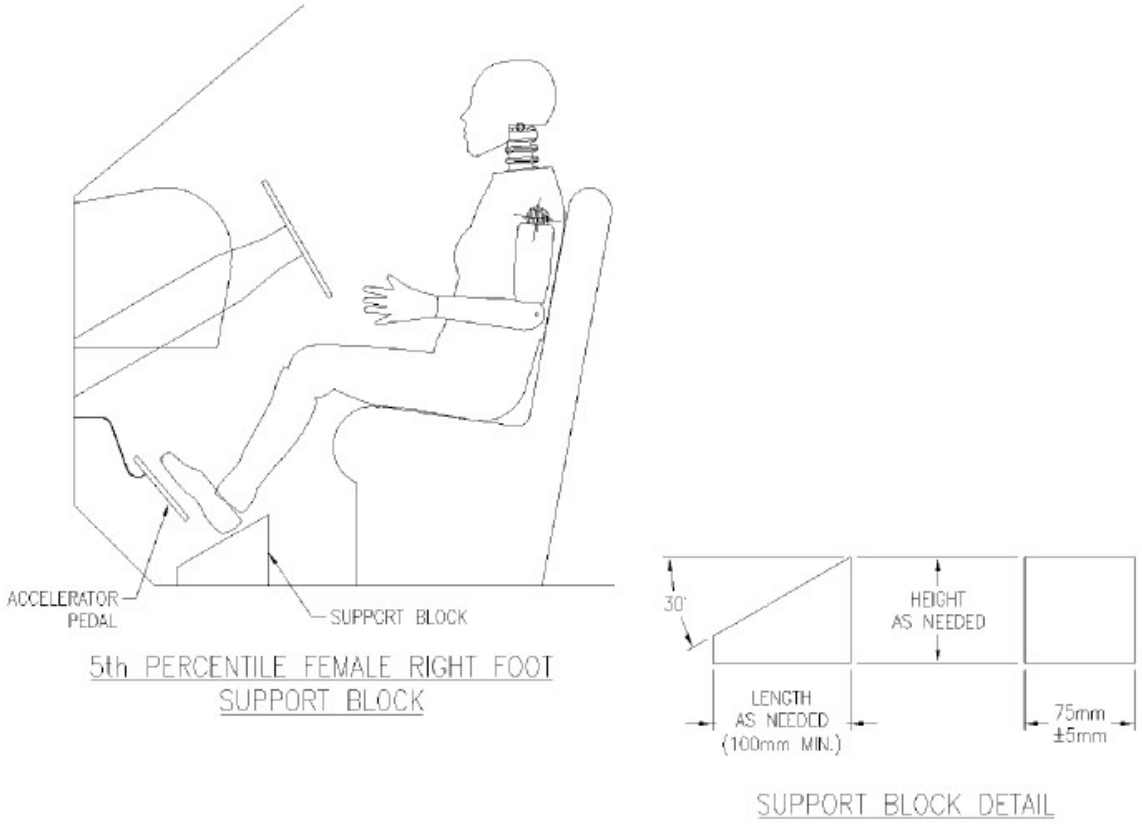


FIGURE G1

_X_ 32. Perform the following steps until either all steps are completed, or the foot contacts the accelerator pedal. Step 32.5 shall be completed in all cases.

__ 32.1 Extend the leg until the foot contacts the pedal. Do not raise the toe of the foot higher than the top of the accelerator pedal. If the foot does not contact the pedal, proceed to the next step. If pedal contact does occur, place a tapered foam block as shown in Figure G1 under the heel with the shallow part of the taper facing forward. (S16.3.2.2.1(b) & S16.3.2.2.3)

__ 32.2 If the vehicle has an adjustable accelerator pedal, move the pedals rearward until pedal contact occurs or the pedals reach the full rearward position. If pedal contact does occur, place a tapered foam block as shown in Figure G1 under the heel with the shallow part of the taper facing forward. (S16.3.2.2.1(b) & S16.3.2.2.3)

__ N/A No pedal adjustment

__ 32.3 Angle the foot to achieve contact between the foot and the pedal. If the foot does not contact the pedal, return the foot to the perpendicular orientation. If pedal contact does occur, place a tapered foam block as shown in Figure G1 under the heel with the shallow part of the taper facing forward. (S16.3.2.2.2 & S16.3.2.2.3)

__ 32.4 Align the centerline of the foot in the same horizontal plane as the centerline of the accelerator pedal. Place a tapered foam block as shown in Figure G1 under the heel with the shallow part of the taper facing forward. (S16.3.2.2.3)

_X_ 32.5 Record foot position

_X_ Pedal Contact achieved. Contact occurred at step _31.1_.

__ Heel set _____ mm from floor pan.

__ Pedal Contact not achieved. Heel set ___ mm from the floor pan.

_X_ 33. Driver's foot positioning, left foot.

_X_ 33.1 Place the foot perpendicular to the leg and determine if the heel contacts the floor pan at any leg position. If the heel contacts the floor pan proceed to step 33.2, otherwise position the leg as perpendicular to the thigh as possible with the foot parallel to the floor pan. (S16.2.2.6)

_X_ 33.2 Place the foot on the toe board with the heel resting on the floor pan as close to the intersection of the floor pan and the toe board as possible. Adjust the angle of the foot if necessary to contact the toe board. If the foot will not contact the toe board, set the foot perpendicular to the leg, and set the heel on the floor pan as far forward as possible. Avoid contact with the brake pedal, clutch pedal, wheel well projection, and footrest. To avoid this contact use the following three manipulations in the order listed, with each subsequent option incorporating the previous, until contact is avoided: rotate the foot about the lower leg (abduction/adduction), plantar flex the foot, rotate the leg outboard about the hip. Movement should be the minimum amount necessary. If it is not possible to avoid all foot contact, give priority to avoiding brake or clutch pedal contact. (S16.2.2.4 & S16.2.2.5 & S16.2.2.7)

_X_ No contact
__ Foot rotated about the leg (abduction/adduction)
__ Foot rotated about the leg, and foot plantar flexed
__ Foot rotated about the leg, foot plantar flexed, and the leg rotated about the hip.

_X_ 33.3 Record foot position.

__ Heel does not contact floor pan.
__ Heel on floor pan and foot on toe board.
_X_ Heel on floor pan and foot not on toe board.

_X_ 34. Driver arm/hand positioning.

_X_ 34.1 Place the dummy's upper arms adjacent to the torso with the arm centerlines as close to a vertical longitudinal plane as possible. (S16.3.2.3.1)

_X_ 34.2 Place the palms of the dummy in contact with the outer part of the steering wheel rim at its horizontal centerline with the thumbs over the steering wheel rim. (S16.3.2.3.2)

_X_ 34.3 If it is not possible to position the thumbs inside the steering wheel rim at its horizontal centerline, then position them above and as close to the horizontal centerline of the steering wheel rim as possible. (S16.3.2.3.3)

_X_ 34.4 Lightly tape the hands to the steering wheel rim so that if the hand of the test dummy is pushed upward by a force of not less than 9 N (2 lb) and not more than 22 N (5 lb), the tape releases the hand from the steering wheel rim. (S16.3.2.3.4)

_X_ 35. Adjustable head restraints
__ N/A, there is no head restraint adjustment

__ 35.1 If the head restraint has an automatic adjustment, leave it where the system positions the restraint after the dummy is placed in the seat. (S16.3.4.1) Go to 36.

_X_ 35.2 Adjust each head restraint vertically so that the mid-horizontal plane determined in Item 2 is aligned with the center of gravity (CG) of the dummy head. (S16.3.4.3)

_X_ 35.3 If the above position is not attainable, move the vertical center of the head restraint to the closest detent below the center of the head CG. (S16.3.4.3)

__N/A midpoint position attained in previous step

_X_ Headrest set at nearest detent below the head CG

_X_ 35.4 If the head restraint has a fore and aft adjustment, place the restraint in the foremost position or until contact with the head is made, whichever occurs first. (S16.3.4.4)

_X_ 36. Driver and passenger manual belt adjustment (for tests conducted with a belted dummy). (S16.3.5)

___ N/A Dummies are unbelted for this test.

X 36.1 If an adjustable seat belt D-ring anchorage exists, place it in the manufacturer's design position for a 5th percentile adult female. (S16.3.5.1) **This information will be supplied by the COTR.**

Manufacturer's specified position: Fixed

Actual Position: Fixed

_X_ 36.2 Place the Type 2 manual belt around the test dummy and fasten the latch. (S16.3.5.2)

_X_ 36.3 Ensure that the dummy's head remains as level as possible. (S16.3.5.3)

_X_ 36.4 Remove all slack from the lap belt. Pull the upper torso webbing out of the retractor and allow it to retract; repeat this operation four times. Apply a 9 N (2 lbf) to 18 N (4 lbf) tension load to the lap belt. If the belt system is equipped with a tension-relieving device, introduce the maximum amount of slack into the upper torso belt that is recommended by the manufacturer. If the belt system is not equipped with a tension-relieving device, allow the excess webbing in the shoulder belt to be retracted by the retractive force of the retractor. (S16.3.5.4)

I certify that I have read and performed each instruction.

Signature: DWj Date: 11/6/24

DATA SHEET 36 - APPENDIX G

DUMMY POSITIONING PROCEDURES

FOR 5th PERCENTILE FEMALE PASSENGER TEST DUMMY CONFORMING TO SUBPART O OF PART 572

Test Vehicle: 2024 Vinfast VF8 NHTSA No.: C20244703
Test Program: FMVSS 208 Compliance Test Date: 11/6/24
Test Technician: Dane Wieting

IMPACT ANGLE:	0°						
BELTED DUMMIES (YES/NO):	YES						
TEST SPEED:		32 to 40 kmph		0 to 48 kmph	X	0 to 56 kmph	
DRIVER DUMMY:	X	5th female				50th male	
PASSENGER DUMMY:	X	5th female				50th male	

__**The passenger seat adjustments are controlled by the adjustments made to the driver's seat. Therefore, positioning of the passenger dummy is made simultaneously with the driver dummy. Adjustments made to the seat to position the driver will override any adjustments that would normally be made to position the passenger. (S16.2.10.3)**

1. Seat Position

X 1.1 Position the seat's adjustable lumbar supports so that the lumbar supports are in the lowest, retracted or deflated adjustment positions. (S16.2.10.1, S20.1.9.1, S20.4.1, S22.1.7.1)
X N/A – No lumbar adjustment

X 1.2 Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2, S20.1.9.2, S20.4.1, S22.1.7.1, S22.4.2.1, S22.4.3.1, S24.4.2.1, S26.2.3, S26.3.1)
X N/A – No additional support adjustment

X 1.3 Position an adjustable leg support system in its rearmost position. (8/27/04 interpretation to Toyota)
X N/A – No adjustable leg support system

X 1.4 **Mark** a point (seat cushion reference point) on the side of the seat cushion that is between 150 mm and 250 mm from the front edge of the seat cushion. (S16.3.1.12)

X 1.5 Draw a line (seat cushion reference line) through the seat cushion reference point. (S16.3.1.13)

X 1.6 Use only the controls that primarily move the seat in the fore-aft direction to move the seat cushion reference point to the rearmost position. (S16.2.10.3.1, S22.1.7.3)

X 1.7 If the seat cushion adjusts fore-aft, independent of the seat back, use only the controls that primarily move the seat cushion in the fore-aft direction to move the seat cushion reference point to the rearmost position. (S16.2.10.3.1, S20.1.9.3)
X N/A – No independent fore-aft seat cushion adjustment

X 1.8 Use any part of any control, other than the parts just used for fore-aft positioning, to determine the range of angles of the seat cushion reference line and to set the seat cushion reference line at the mid-angle. (S16.2.10.3.1)

Maximum angle: 17.6°
Minimum angle: 13.7°
Mid-angle: 15.7°

X 1.9 If the seat and/or seat cushion height is adjustable, use any part of any control other than the parts which primarily move the seat or seat cushion fore-aft, to put the seat cushion reference point in its lowest position with the seat cushion reference line angle at the mid-angle found in 1.8. (S16.2.10.3.1)

___ N/A – No seat height adjustment

X 1.10 Use only the controls that primarily move the seat in the fore-aft direction to verify the seat is in the rearmost position.

X 1.11 Use only the controls that primarily move the seat in the fore-aft direction to **mark** the fore-aft seat positions. **Mark** each position so that there is a visual indication when the seat is at a particular position. For manual seats, move the seat forward one detent at a time and **mark** each detent. For power seats, **mark** only the rearmost, middle, and foremost positions. Label three of the positions with the following: F for foremost, M for mid-position (if there is no mid-position, label the closest adjustment position to the rear of the mid-point), and R for rearmost.

X 1.12 Use only the controls that primarily move the seat in the fore-aft direction to place the seat in the rearmost position.

X 1.13 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually **mark** the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.8. (S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S22.4.3.1, S24.1.2, S24.3.1, S24.4.3.1, S26.2.3, S26.3.1)

___ N/A – No seat height adjustment. Go to 1.18

X 1.14 Use only the controls that primarily move the seat and/or seat cushion in the fore-aft direction to place the seat in the mid-fore-aft position.

X 1.15 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually **mark** the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.8. (S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S24.1.2, S24.3.1)

X 1.16 Use only the controls that change the seat in the fore-aft direction to place the seat in the foremost position. (S16.2.10.3.2)

X 1.17 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually **mark** the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.8. (S16.2.10.3.3, S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S24.1.2, S24.3.1)

X 1.18. Is the seat a bucket seat?

X Yes, go to 1.19 and skip 1.20
__No, go to 1.20 and skip 1.19

X 1.19 Bucket seats:

Locate and **mark** for future reference the longitudinal centerline of the seat cushion. The intersection of the vertical longitudinal plane that passes through the SgRP and the seat cushion upper surface determines the longitudinal centerline of a bucket seat cushion. (S16.3.1.10 & S20.1.10)

__1.20 Bench seats:

Locate and **mark** the longitudinal centerline of the passenger seat cushion. The longitudinal centerline is the same distance from the longitudinal centerline of the vehicle as the center of the steering wheel. (S20.2.1.4, S22.2.1.3, S24.2.3, S20.4.4, S22.2.2.1 (b), S22.2.2.3 (b), S22.2.2.4 (a), S22.2.2.5 (a), S22.2.2.6 (a), S22.2.2.7 (a), S24.2.3 (a))

Record the distance from the longitudinal centerline of the vehicle to the center of the steering wheel. _____

Record the distance from the longitudinal centerline of the vehicle to the longitudinal centerline of the seat cushion. (The vertical plane through this longitudinal centerline is Plane B for suppression.) _____

2. Head Restraint Position

__N/A Vehicle contains automatic head restraints.

__N/A, there is no head restraint adjustment Go to 3

X 2.1 Adjust the head restraint to its lowest position. (S16.2.10.2, S20.1.9.6, S20.4.1, S22.1.7.6, S22.4.2.1, S22.4.3.1, S24.4.3.1, S26.2.3, S26.3.1)

X 2.2 All adjustments of the head restraint shall be used to position it full forward. For example, if it rotates, rotate it such that the head restraint extends as far forward as possible. **Mark** the foremost position. (S16.2.10.2 & S16.3.4.4 & S20.1.9.6, S20.4.1, S22.4.2.1, S22.4.3.1, S24.4.3.1, S26.2.3, S26.3.1)

X 2.3 Measure the vertical distance from the top most point of the head restraint to the bottom most point. Locate and **mark** a horizontal plane through the midpoint of this distance. (S16.3.4.3)

Vertical height of head restraint: 200 mm

Mid-point height: 100 mm

X 3. Place the SCRP in the full rearward, mid-height position, and mid-seat cushion angle. (S16.3.3.1.1)

X 4. Fully recline the seat back. (S16.3.3.1.2)

____N/A seat back not adjustable.

X 5. Place the dummy in the seat with the legs at an angle of 120 degrees to the thighs. The calves should not be touching the seat cushion. (S16.3.3.1.2)

X 6. Position the dummy in the seat such that the midsagittal plane is coincident with the longitudinal seat cushion marking that was determined in item 1.19 or 1.20. (S16.3.3.1.3 and S16.3.3.1.4)

X 7. Hold down the dummy's thighs and push rearward on the upper torso to maximize the pelvic angle. (S16.3.3.1.5)

X 8. Set the angle between the legs and the thighs to 120 degrees. (S16.3.3.1.6)

X 9. Set the transverse distance between the centers of the front of the knees at 160 to 170 mm. (6.3 to 6.7 inches). Center the knee separation with respect to the longitudinal seat cushion marking that was determined in item 1.19 or 1.20. (S16.3.3.1.6)
Record Knee Separation: 165 mm

X 10. Push rearward on the dummy's knees until the pelvis contacts the seat back, or the backs of the calves contact the seat cushion, whichever occurs first. (S16.3.3.1.6)
__Pelvis contacted seat back.
X Calves contacted seat cushion.

X 11. Gently rock the upper torso ± 5 degrees (approximately 51 mm (2 inches)) side-to-side three times. (S16.3.3.1.7)

X 12. If needed, extend the legs until the feet do not contact the floor pan. The thighs should be resting on the seat cushion. (S16.3.3.1.8)

X 13. Use seat controls to line up the seat markings determined during the completion of item 1 to set the foremost fore-aft position, mid-height position and the seat cushion mid-angle. If the dummy contacts the interior move the seat rearward until a maximum clearance of 5 mm (0.2 inches) is achieved or the seat is in the closest detent position that does not cause dummy contact. (S16.3.3.1.8)
X Foremost, mid-height position and the seat cushion mid-angle reached
__Dummy contact. Clearance set at maximum of 5 mm
Measured Clearance:_____
__Dummy Contact. Seat set at nearest detent position.
Seat position __ detent positions rearward of foremost
(foremost is position zero)

X 14. If the seat back is adjustable, rotate the seat back forward while holding the thighs in place. Continue rotating the seat back forward until the transverse instrument platform of the dummy head is level ± 0.5 degrees. If head cannot be leveled using the seat back adjustment, or the seat back is not adjustable, use the lower neck bracket adjustment to level the head. If a level position cannot be achieved, adjust the head as closely as possible to the ± 0.5 degree range. (S16.3.3.1.9 and S16.3.3.1.10)
(Check All That Apply)
__Seat back not adjustable
__Seat back not independent of driver side seat back
X Head Level Achieved. (Check all that apply)
X Head leveled using the adjustable seat back
__Head leveled using the neck bracket.
Head Angle: 0.0 degrees
__Head Level NOT Achieved. (Check all that apply)
__ Head adjusted using the adjustable seat back
__ Head adjusted using the neck bracket.
Head Angle: _____ degrees

X 15. Verify the pelvis is not interfering with the seat bight. (S16.3.3.1.9)
X No interference
__Pelvis moved forward the minimum amount so that it is not caught in the seat bight.

X 16. Verify the dummy abdomen is properly installed. (S16.3.3.1.9)
X Abdomen still seated properly into dummy
__Abdomen was adjusted because it was not seated properly into dummy

X 17. Head Angle
X N/A, neither the pelvis nor the abdomen were adjusted.

X 17.1 Head still level (Go to 18)

__17.2 Head level adjusted

__Head Level Achieved. (Check all that apply)

__Head leveled using the adjustable seat back

__Head leveled using the neck bracket.

Head Angle: _____ degrees

__Head Level NOT Achieved. (Check all that apply)

__Head adjusted using the adjustable seat back

__Head adjusted using the neck bracket.

Head Angle: _____ degrees

X 18. Measure and set the pelvic angle using the pelvic angle gage TE-2504. The pelvic angle should be 20.0 degrees ± 2.5 degrees. If the pelvic angle cannot be set to the specified range because the head will not be level or because the dummy will have need major repositioning, adjust the pelvis as closely as possible to the angle range, but keep the head level.

X Pelvic angle set to 20.0 degrees ± 2.5 degrees.

__Pelvic angle of 20.0 degrees not achieved, the angular difference was minimized.

X Record the pelvic angle: 20.0 degrees

X 19. Check the dummy for contact with the interior after completing adjustments.

X No contact.

__Dummy in contact with interior.

__Seat moved aft ___ mm from the previous position.

__Seat moved aft ___ detent positions from the previous position.

X 20. Verify the transverse instrument platform of the dummy head is level +/- 0.5 degrees. Use the lower neck bracket adjustment to level the head. If a level position cannot be achieved, minimize the angle. (S16.3.3.1.9, S16.3.3.1.10, and S16.3.3.1.11)

X Head Level Achieved

Head Angle: 0.0 degrees

__Head Level NOT Achieved.

Head Angle: _____ degrees

X 21. Check the dummy to see if additional interior clearance is obtained, allowing the seat to be moved forward. (S16.3.3.1.12)

__N/A Bench Seat

X N/A Seat already at full forward position.

__Clearance unchanged. No adjustments required.

__Additional clearance available

__Seat moved Forward ___ mm from the previous position.

__Seat moved Forward ___ detent positions from the previous position.

__Seat moved Forward, Full Forward position reached.

X 22. Passenger foot positioning. (Indicate final position achieved) (S16.3.3.2)

__22.1 Place feet flat on the toe board; OR (S16.3.3.2.1)

X 22.2 If the feet cannot be placed flat on the toe board, set the feet perpendicular to the lower leg, and rest the heel as far forward on the floor pan as possible; OR (S16.3.3.2.2)

__22.3 If the heels do not touch the floor pan, set the legs as perpendicular to the thighs as possible and set the feet parallel to the floor pan. (S16.3.3.2.2)

X 23. Passenger arm/hand positioning. (S16.3.3.3)

X 23.1 Place the dummy's upper arms adjacent to the torso with the arm centerlines as close to a vertical longitudinal plane as possible. (S16.3.3.3.1)

X 23.2 Place the palms of the dummy in contact with the outer part of the thighs (S16.3.3.3.2)

X 23.3 Place the little fingers in contact with the seat cushion. (S16.3.3.3.3)

X 24. Adjustable head restraints (S16.3.4)
__N/A, there is no head restraint adjustment

___24.1 If the head restraint has an automatic adjustment, leave it where the system positions the restraint after the dummy is placed in the seat. (S16.3.4.1) Go to 25.

_X 24.2 Adjust each head restraint vertically so that the horizontal plane determined in Item 2 is aligned with the center of gravity (CG) of the dummy head. (S16.3.4.3)

X 24.3 If the above position is not attainable, move the vertical center of the head restraint to the closest detent below the center of the head CG. (S16.3.4.3)
__N/A midpoint position attained in previous step
X Headrest set at nearest detent below the head CG

X 24.4 If the head restraint has a fore and aft adjustment, place the restraint in the foremost position or until contact with the head is made, whichever occurs first. (S16.3.4.4)

X 25. Manual belt adjustment (for tests conducted with a belted dummy) (S16.3.5)
___ N/A, Unbelted test

X 25.1 If an adjustable seat belt D-ring anchorage exists, place it in the manufacturer's design position for a 5th percentile adult female. **This information will be supplied by the COTR.** (S16.3.5.1)
Manufacturer's specified position: Fixed
Actual Position: Fixed

X 25.2 Place the Type 2 manual belt around the test dummy and fasten the latch. (S16.3.5.2)

_X 25.3 Ensure that the dummy's head remains as level as possible. (S16.3.5.3)

_X 25.4 Remove all slack from the lap belt. Pull the upper torso webbing out of the retractor and allow it to retract; repeat this operation four times. Apply a 9 N (2 lbf) to 18 N (4 lbf) tension load to the lap belt. If the belt system is equipped with a tension-relieving device, introduce the maximum amount of slack into the upper torso belt that is recommended by the manufacturer. If the belt system is not equipped with a tension-relieving device, allow the excess webbing in the shoulder belt to be retracted by the retractive force of the retractor. (S16.3.5.4)

I certify that I have read and performed each instruction.

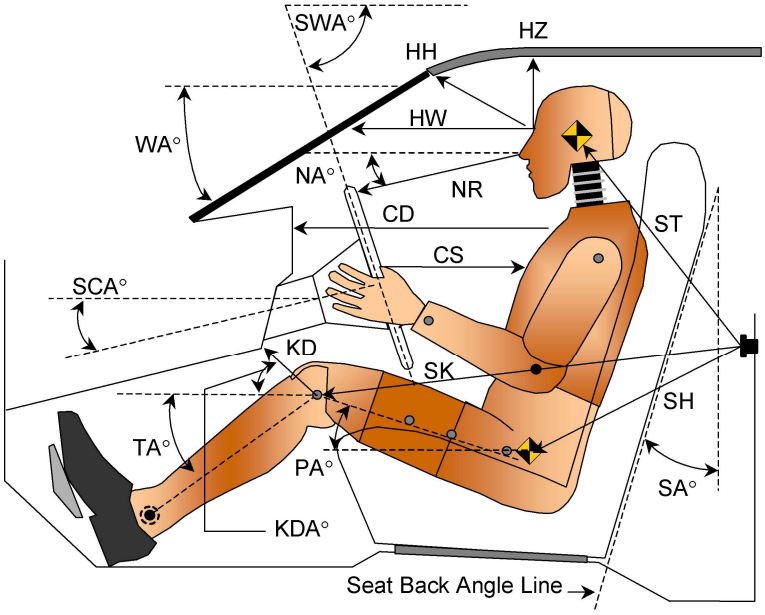
Signature:_____ Date: 11/6/24

DATA SHEET 37

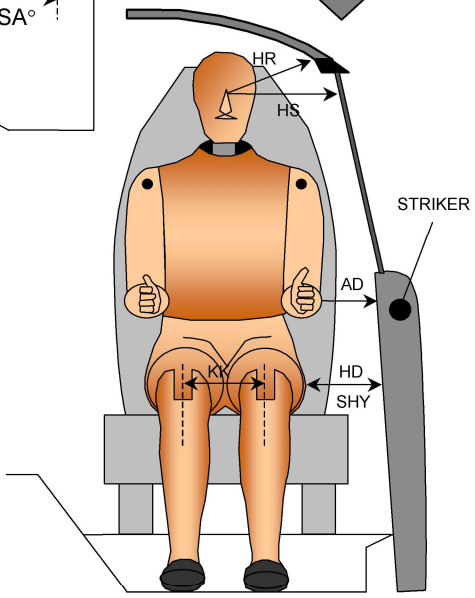
DUMMY MEASUREMENTS

Test Vehicle: 2024 Vinfast VF8 NHTSA No.: C20244703
Test Program: FMVSS 208 Compliance Test Date: 11/6/24
Test Technician: Dane Wieting

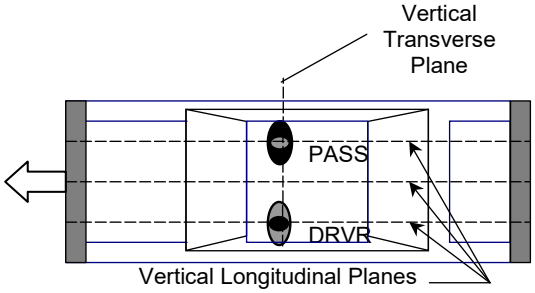
DUMMY MEASUREMENTS FOR FRONT SEAT OCCUPANTS



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)



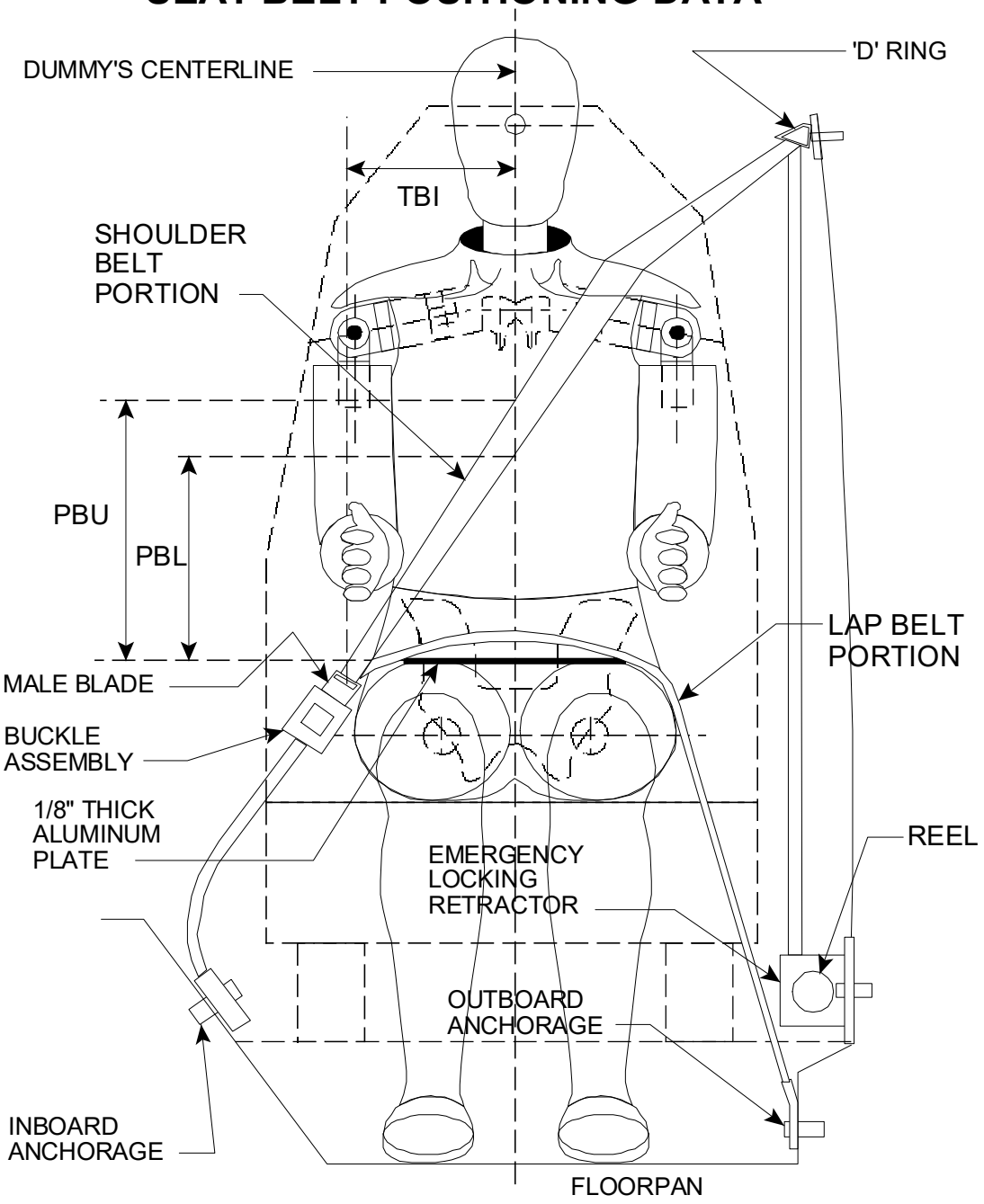
CD	Chest to Dash
CS	Chest to Steering Wheel Hub
HH	Head to Header
HW	Head to Windshield
HZ	Head to Roof
KDA	Knee to Dash Angle
KDL	Left Knee to Dash
KDR	Right Knee to Dash
NA	Nose to Rim Angle
NR	Nose to Rim
PA	Pelvic Angle
RA	Rim to Abdomen
SA	Seat Back Angle
SCA	Steering Column Angle
SH	Striker to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



TEST DUMMY POSITION MEASUREMENTS

Code	Measurement Description	Driver SN 507		Passenger SN 510	
		Length (mm)	Angle (°)	Length (mm)	Angle (°)
WA	Windshield Angle		27.1		
SWA	Steering Wheel Angle		64.9		
SCA	Steering Column Angle		25.1		
SA	Seat Back Angle (On Headrest Post)		-14.6		-14.7
HZ	Head to Roof (Z)	217		229	
HH	Head to Header	345	41.5	348	43.5
HW	Head to Windshield	732	0.0	751	0.0
HR	Head to Side Header (Y)	291		292	
NR	Nose to Rim	267	3.0		
CD	Chest to Dash	511		370	
CS	Chest to Steering Hub	173	6.9		
RA	Rim to Abdomen	107	0.0		
KDL	Left Knee to Dash	125	33.2	132	
KDR	Right Knee to Dash	117		138	32.0
PA	Pelvic Angle		21.1		20.0
TA	Tibia Angle		59.2		51.5
KK	Knee to Knee (Y)	308		232	
SK	Striker to Knee	629	91.0	635	94.6
ST	Striker to Head	518	18.6	517	22.3
SH	Striker to H-Point	309	109.4	348	102.3
SHY	Striker to H-Point (Y)	309		307	
HS	Head to Side Window	410		397	
HD	H-Point to Door (Y)	268		183	
AD	Arm to Door (Y)	86		98	
AA	Ankle to Ankle	294		168	

SEAT BELT POSITIONING DATA



FRONT VIEW OF DUMMY

SEAT BELT POSITIONING MEASUREMENTS

Measurement Description	Units	Driver	Passenger
PBU - Top surface of reference to belt upper edge	mm	305	275
PBL - Top surface of reference to belt lower edge	mm	240	190

DATA SHEET 38

CRASH TEST

Test Vehicle: 2024 Vinfast VF8
Test Program: FMVSS 208 Compliance
Test Technician: Chad Williams

NHTSA No.: C20244703
Test Date: 11/6/24

IMPACT ANGLE:	0°						
BELTED DUMMIES (YES/NO):	YES						
TEST SPEED:		32 to 40 kmph		0 to 48 kmph	X	0 to 56 kmph	
DRIVER DUMMY:	X	5th female			50th male		
PASSENGER DUMMY:	X	5th female			50th male		

X 1. Vehicle underbody painted.
X 2. The speed measuring devices are in place and functioning.
X 3. The speed measuring devices are 1.5 m from the barrier (spec. 1.5 m) and 30 cm from the barrier (spec. is 30 cm).
X 4. Convertible top is in the closed position.
  X N/A, not a convertible.
X 5. Instrumentation and wires are placed so motion of dummies during impact is not affected.
X 6. Tires inflated to pressure on tire placard or if it does not have a tire placard because it is not a passenger car, then inflated to the tire pressure specified in the owner information.

260 kpa front left tire 260 kpa specified on tire placard or in owner information
260 kpa front right tire 260 kpa specified on tire placard or in owner information
280 kpa rear left tire 280 kpa specified on tire placard or in owner information
280 kpa rear right tire 280 kpa specified on tire placard or in owner information

X 7. Time zero contacts on barrier in place.
X 8. Pre test zero and shunt calibration adjustments performed and recorded.
X 9. Dummy temperature meets requirements of section 12.2 of the test procedure.
X 10. Vehicle hood closed and latched.
X 11. Transmission placed in neutral.
X 12. Parking brake off.
X 13. Are the heads still level?
  X Yes, go to 14
  No, Adjust dummy so that head is at the angle recorded in the Appendix F or G data sheets and then continue.
X 14. Ignition in the ON position.
X 15. Doors closed and latched but not locked.
X 16. Post test zero and shunt calibration checks performed and recorded.
X 17. Actual test speed: 55.1 kmph
X 18. Vehicle rebound from the barrier: 129 cm
X 19. Describe whether the doors open after the test and what method is used to open the doors.
  X Left Front Door: Door remained closed and latched; Door opened without tools.
  X Right Front Door: Door remained closed and latched; Door opened without tools.
  X Left Rear Door: Door remained closed and latched; Door opened without tools.
  X Right Rear Door: Door remained closed and latched; Door opened without tools.

[X] 20. Describe the contact points of the dummy with the interior of the vehicle.

- [X] Driver Dummy: Head to Air Bag and Headrest; Chest to Air Bag; Knees to Knee Restraint
- [X] Passenger Dummy: Head to Air Bag; Chest to Air Bag; Knees to Knee Restraint

REMARKS:

Signature: Chad Wilson Date: 11/6/24

I certify that I have read and performed each instruction.

DATA SHEET 40

ACCIDENT INVESTIGATION MEASUREMENTS

Test Vehicle: 2024 Vinfast VF8
Test Program: FMVSS 208 Compliance
Test Technician: Chad Williams

NHTSA No.: C20244703
Test Date: 11/6/24

IMPACT ANGLE:	0°						
BELTED DUMMIES (YES/NO):	YES						
TEST SPEED:		32 to 40 kmph		0 to 48 kmph	X	0 to 56 kmph	
DRIVER DUMMY:	X	5th female			50th male		
PASSENGER DUMMY:	X	5th female			50th male		

Vehicle Year/Make/Model/Body Style:	2024 Vinfast VF8 MPV
VIN:	RLLV1AEB2RH004428
Wheelbase:	2946 mm
Build Date:	03/2023
Vehicle Size Category:	4
Test Weight:	2659.0 kg
Front Overhang:	857 mm
Overall Width:	1887 mm
Overall Length Center:	4741 mm

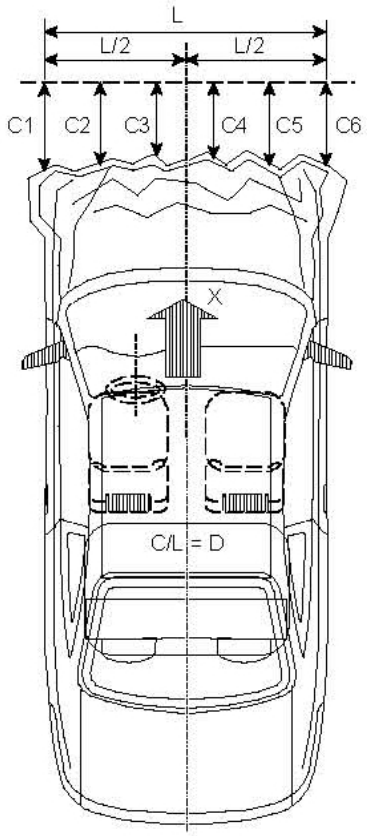
Accelerometer Data	
Location:	As per measurements on Data Sheet 33
Linearity:	>99.9%

Integration Algorithm:	Trapezoidal
Vehicle Impact Speed:	55.1 kmph
Time of Separation:	116.9 ms
Velocity Change:	65.6 kmph

CRUSH PROFILE

Collision Deformation Classification: 12FDEW3
Midpoint of Damage: Vehicle Longitudinal Centerline
Damage Region Length (mm): 1887
Impact Mode: Frontal Barrier

No.	Measurement Description	Units	Pre-Test	Post-Test	Difference
C1	Crush zone 1 at left side	mm	4639	4238	401
C2	Crush zone 2 at left side	mm	4726	4206	520
C3	Crush zone 3 at left side	mm	4741	4229	512
C4	Crush zone 4 at right side	mm	4741	4233	508
C5	Crush zone 5 at right side	mm	4726	4246	480
C6	Crush zone 6 at right side	mm	4639	4241	398



REMARKS:

Signature: _____ Date: 11/6/24

I certify that I have read and performed each instruction.

DATA SHEET 41

WINDSHIELD MOUNTING (FMVSS 212)

Test Vehicle: 2024 Vinfast VF8
Test Program: FMVSS 208 Compliance
Test Technician: Chad Williams

NHTSA No.: C20244703
Test Date: 11/6/24

IMPACT ANGLE:	0°						
BELTED DUMMIES (YES/NO):	YES						
TEST SPEED:		32 to 40 kmph		0 to 48 kmph	X	0 to 56 kmph	
DRIVER DUMMY:	X	5^{th} female				50^{th} male	
PASSENGER DUMMY:	X	5^{th} female				50^{th} male	

1. Pre-Crash

X 1.1 Describe from visual inspection how the windshield is mounted and describe any trim material.

Retained with glue, rubber and plastic trim

X 1.2 Mark the longitudinal centerline of the windshield.

X 1.3 Measure pre-crash A, B, and C for the left side and record in the chart below.

X 1.4 Measure pre-crash C, D, and E for the right side and record in the chart below.

X 1.5 Measure from the edge of the retainer or molding to the edge of the windshield.

X Dimension G (mm): 5 mm

2. Post Crash

X 2.1 Can a single thickness of copier type paper (as small a piece as necessary) slide between the windshield and the vehicle body?

- X No - Pass. Skip to the table of measurements, complete it by repeating the pre-crash measurements in the post crash column, and calculate the retention percentage, which will be 100%.
- Yes, go to 2.2

2.2 Visibly mark the beginning and end of the portions of the periphery where the paper slides between the windshield and the vehicle body.

2.3 Measure and record post-crash A, B, C, D, E, and F such that the measurements do not include any of the parts of the windshield where the paper slides between the windshield and the vehicle body.

2.4 Calculate and record the percent retention for the right and left side of the windshield.

2.5 Is total right side percent retention less than 50%?

- Yes, Fail
- No, Pass

2.6 Is total left side percent retention less than 50%?

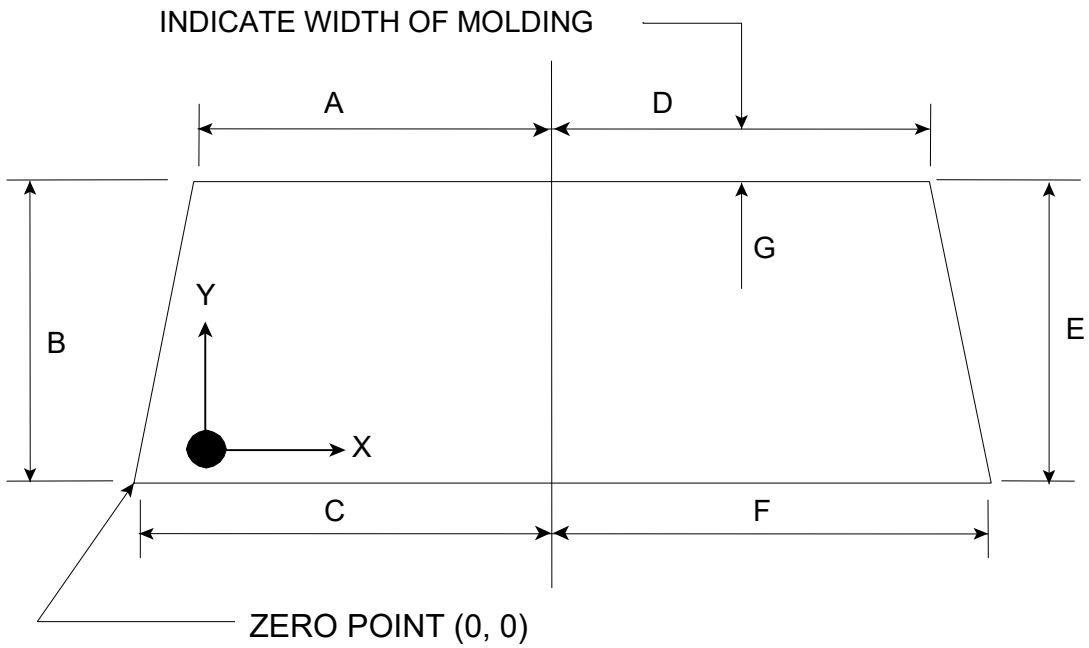
- Yes, Fail
- No, Pass

WINDSHIELD RETENTION MEASUREMENTS

	Dimension	Pre-Crash (mm)	Post-Crash (mm)	Percent Retention (Post-Test ÷ Pre-Crash)
Left Side	A	677	677	100%
	B	894	894	100%
	C	786	786	100%
	Total	2357	2357	100%
Right Side	D	677	677	100%
	E	894	894	100%
	F	786	786	100%
	Total	2357	2357	100%

Indicate area of mounting failure: NONE

FRONT VIEW OF WINDSHIELD



REMARKS: NONE

Signature: Chad Williams Date: 11/6/24

I certify that I have read and performed each instruction.

DATA SHEET 42

WINDSHIELD ZONE INTRUSION (FMVSS 219)

Test Vehicle: 2024 Vinfast VF8
Test Program: FMVSS 208 Compliance
Test Technician: Chad Williams

NHTSA No.: C20244703
Test Date: 11/6/24

IMPACT ANGLE:	0°						
BELTED DUMMIES (YES/NO):	YES						
TEST SPEED:		32 to 40 kmph		0 to 48 kmph	X	0 to 56 kmph	
DRIVER DUMMY:	X	5th female				50th male	
PASSENGER DUMMY:	X	5th female				50th male	

This standard specifies limits for the displacement of vehicle components into the windshield area during a frontal barrier impact test at any speed up to and including 48 kmph.

X 1. Place a 165 mm diameter rigid sphere, with a mass of 6.8 kg on the instrument panel so that it is simultaneously touching the instrument panel and the windshield. (571.219 S6.1(a))

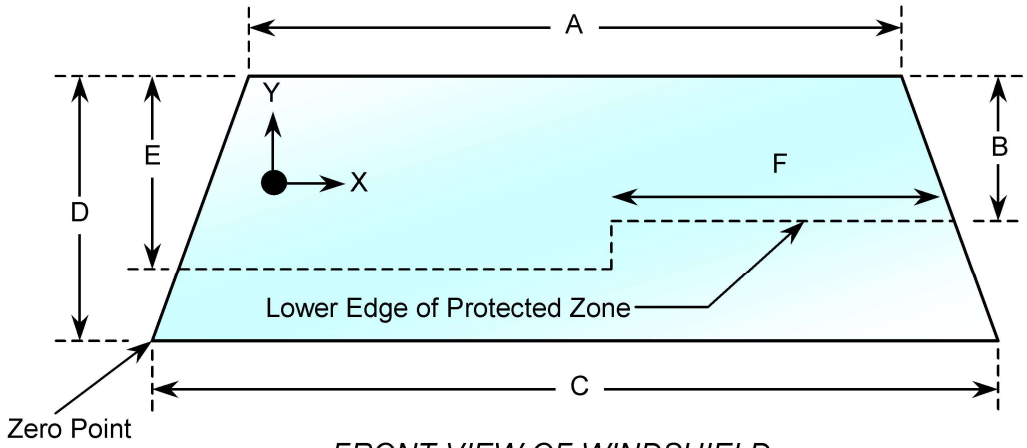
X 2. Roll the sphere from one side of the windshield to the other while marking on the windshield where the sphere contacts the windshield. (571.219 S6.1(b))

X 3. From the outermost contactable points on the windshield draw a horizontal line to the edges of the windshield. (571.219 S6.1(b))

X 4. Draw a line on the inner surface of the windshield that is 13 mm below the line determined in items 2 and 3.

X 5. After the crash test, record any points where a part of the exterior of the vehicle has marked, penetrated, or broken the windshield.

Provide all dimensions necessary to reproduce the protected area.



FRONT VIEW OF WINDSHIELD

WINDSHIELD DIMENSIONS

Item	Units	Value
A	mm	1354
B	mm	535
C	mm	1572
D	mm	894
E	mm	540
F	mm	503

AREA OF PROTECTED ZONE FAILURES:

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

X	Y
NONE	

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

X	Y
NONE	

REMARKS:

I certify that I have read and performed each instruction.

Signature: Chad Williams Date: 11/6/24

FMVSS 305

ELECTRIC POWERED VEHICLES: ELECTROLYTE SPILLAGE AND ELECTRICAL SHOCK PROTECTION

This electric vehicle, a 2024 Vinfast VF8 (NHTSA No. C20244703), in conjunction with the FMVSS 208, was tested to FMVSS 305.

The test was performed in accordance with the specifications of the Office of Vehicle Safety Compliance (OVSC) Test Procedures TP-305-01 to determine compliance to the requirements of Federal Motor Vehicle Safety Standards (FMVSS) 305, “Electric Powered Vehicles: Electrolyte Spillage and Electrical Shock Protection”.

Based on the test results, the 2024 Vinfast VF8 appears to meet the requirements of FMVSS 305 testing.

If a measured voltage was zero and resulted in a division by zero “Zero Volts” was reported. This condition is considered being compliant as stated in TP-305-01 12.4 F.

The following data sheets document the results of the FMVSS 305 test.

DATA SHEET 1

ELECTRIC VEHICLE PROPULSION SYSTEM

Test Vehicle: 2024 Vinfast VF8
Test Program: FMVSS 208 Compliance
Test Technician: Dane Wieting

NHTSA No.: C20244703
Test Date: 11/6/24

VEHICLE PROPULSION SYSTEM

Type of Electric Vehicle (Electric/Hybrid):	Electric
Propulsion Battery Type:	Lithium-Ion
Nominal Voltage (V):	400 V
Physical Location of Automatic Propulsion Battery Disconnect:	Internal to HV battery enclosure
Auxiliary Battery Type:	12 V Lead Acid Battery

DATA SHEET 2

ELECTRIC ENERGY STORAGE CONVERSION / DEVICE SYSTEM DATA (COTR SUPPLIED DATA)

Electrolyte Fluid Type:	E345	
Electrolyte Fluid Specific Gravity:	16 %	
Electrolyte Kinematic Viscosity (centistokes):	4	
Electrolyte Fluid Color:	Clear	
Electric Energy Storage/Conversion System Coolant Type, Color, Specific Gravity (if applicable):	Light Green	
Location of Battery Modules:		Inside Passenger Compartment
	X	Outside Passenger Compartment
	The high voltage battery is mounted on the underside of the vehicle.	
Electric Energy Storage/Conversion System State of Charge:	X	Maximum State of Charge
		Range of Normal Operating Voltage
Maximum	400 V	
Test Voltage - No less than 95% of maximum State of Charge:		
Range of Normal Operating Voltage:		
Test Voltage – Within Normal Operative Voltage Range:		
Test Vehicle Equipped with Electrical Isolation Monitoring		

VEHICLE CHASSIS GROUND POINT(S) LOCATION(S)

Details of Vehicle Chassis Ground Point(s) & Location(s)	The Body Structure was used as Vehicle Ground

ELECTRIC ENERGY STORAGE/CONVERSION TEST POINTS

Details of Electric Energy Storage/Conversion System Test Points:	At the Front Side of the Propulsion Battery System at the Positive and Negative Locations

DATA SHEET 3

PRE-IMPACT ELECTRIC ISOLATION MEASUREMENTS & CALCULATIONS

Test Vehicle: 2024 Vinfast VF8
Test Program: FMVSS 208 Compliance
Test Technician: Dane Wieting

NHTSA No.: C20244703
Test Date: 11/6/24

VOLTMETER INFORMATION

Make:	Fluke
Model:	177
Serial Number:	61660495
Internal Impedance Value (MΩ):	50 MΩ
Resolution (V):	.001 Volts
Last Calibration Date:	02/14/2024

ELECTRIC ENERGY STORAGE/CONVERSION SYSTEM VOLTAGE

Measurement shall be made with Energy Storage/Conversion System connected to the vehicle propulsion system, and the vehicle in the "ready-to-drive" (propulsion system energized) position.

If voltage measurement is not at the voltage or within the normal operating voltage range specified by the manufacturer, the battery must be charged.

Vb (V):	458.0

ELECTRIC ENERGY STORAGE/CONVERSION SYSTEM TO VEHICLE CHASSIS

Vehicle chassis point(s) determined and supplied to contractor by COTR.

V1 (V):	219.3
V2 (V):	187.7

ELECTRIC ENERGY STORAGE / CONVERSION SYSTEM TO VEHICLE CHASSIS ACROSS RESISTOR

The known resistance Ro (in ohms) should be approximately 500 times the normal operating voltage of the vehicle (in volts) per SAE J1766.

Ro (Ω):	226,100 Ω

V1 (V) Pre-Impact:	219.3
V2 (V): Pre-Impact:	187.7

DATA SHEET 3 (CONTINUED)

PRE-IMPACT ELECTRICAL ISOLATION MEASUREMENTS & CALCULATIONS

ELECTRICAL ISOLATION MEASUREMENT

Note: If measured voltage is zero and results in a division by zero, record “Zero Volts”. This “zero voltage” condition is considered as being compliant.

V1’ (V):	65.8
Ri1 = Ro (1 + V2/V1) [(V1-V1’)/V1’]	
Ri1 (Ω):	978,901
V2’ (V):	66.0
Ri2 = R0 (1 + V1/V2) [(V2-V2’)/V2’]	
Ri2 (Ω):	904,019
Ri = The lesser of Ri1 and Ri2	
Ri Pre-Test (Ω):	904,019
Ri/Vb (Ω/V):	1,974
Minimum Electrical Isolation Value is 500 Ω/V	

Note: Measurements completed within 15 minutes prior to impact.

Is the measured Electrical Isolation Value:	Yes, Pass	No, Fail
≥500 Ω/V without electrical isolation monitoring	X	
≥100 Ω/V with electrical isolation monitoring		

DATA SHEET 4

POST-IMPACT DATA

Test Vehicle: 2024 Vinfast VF8
Test Program: FMVSS 208 Compliance
Test Technician: Dane Wieting

NHTSA No.: C20244703
Test Date: 11/6/24

VOLTMETER INFORMATION

Make:	Fluke
Model:	177
Serial Number:	61660495
Internal Impedance Value (MΩ):	50 MΩ
Nominal Propulsion Battery Voltage (Vb) (V):	400.0
Resolution (V):	.001 Volts
NOTE: Record V1, V2, V1', V2' voltage measurements at a minimum of 5 seconds after impact.	

ELECTRIC ENERGY STORAGE/CONVERSION SYSTEM VOLTAGE LOCATION OF MEASUREMENT

Measurement is made from the side of the automatic disconnect connected to the electric powertrain.

Vb Post (V):	0.1

ELECTRIC ENERGY STORAGE/CONVERSION SYSTEM VOLTAGE

V1 =	0.0	V	Impact Time:	1	Minutes	2	s
V2 =	0.0	V	Impact Time:	1	Minutes	5	s
V1' =	0.0	V	Impact Time:	1	Minutes	8	s
V2' =	0.0	V	Impact Time:	1	Minutes	12	s

ELECTRICAL ISOLATION MEASUREMENT

Note: If measured voltage is zero and results in a division by zero, record "Zero Volts". This "zero voltage" condition is considered as being compliant.

Ri1 = Ro (1 + V2/V1) [(V1-V1')/V1']							
Ri1 =	Zero Volts	Ω	Impact Time:	1	Minutes	30	s
Ri2 = Ro (1 + V1/V2) [(V2-V2')/V2']							
Ri2 =	Zero Volts	Ω	Impact Time:	1	Minutes	32	s
Ri = The lesser of Ri1 and Ri2							
Ri =	Zero Volts	Ω	Impact Time:	1	Minutes	35	s
Ri/Vb = electrical Isolation Value/Nominal Battery Voltage							
Minimum Electrical Value is 500 Ω/V							
Ri/Vb =	Zero Volts	Ω/V	Impact Time:	1	Minutes	38	s

Is the measured Electrical Isolation Value:	Yes, Pass	No, Fail
≥500 Ω/V without electrical isolation monitoring	X	
≥100 Ω/V with electrical isolation monitoring		

DATA SHEET 4 (CONTINUED)

POST-IMPACT DATA

ELECTRIC ENERGY STORAGE/CONVERSION DEVICE

	Inside Passenger Compartment	Outside Passenger Compartment
Location of Electric Energy Storage/Conversion Device:		X

	Yes, Pass	No, Fail
All Components of Electrical Energy Storage/Conversion Device remained attached to the vehicle with at least one mounting location.	X	

Describe Electric Energy Storage/Conversion Device movement within the passenger compartment [Supply photographs as appropriate]:
No Movement

	Yes, Fail	No, Pass
Has the Electric Energy Storage/Conversion Device moved within the passenger compartment?		X

Describe intrusion of an outside Electric Energy Storage/Conversion Device into the passenger compartment [Supply photographs as appropriate]:
No Movement

	Yes, Fail	No, Pass
Has an outside Electric Energy Storage/Conversion Device intruded into the passenger compartment?		X

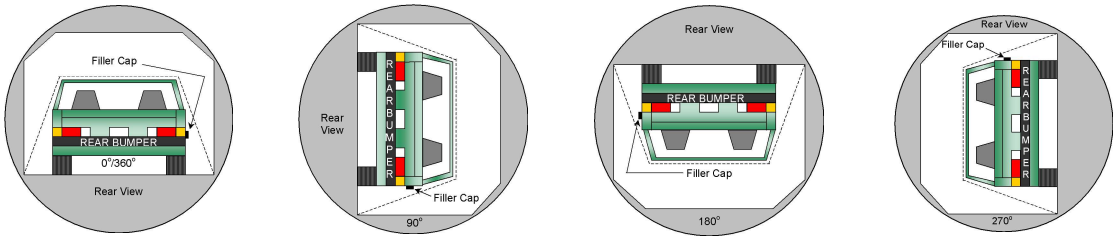
	Yes, Fail	No, Pass
Is Electric Energy Storage/Conversion Device electrolyte spillage visible in the passenger compartment?		X

DATA SHEET 5

STATIC ROLLOVER TEST DATA

Test Vehicle: 2024 Vinfast VF8
Test Program: FMVSS 208 Compliance
Test Technician: Dane Wieting

NHTSA No.: C20244703
Test Date: 11/6/24



0/360 **90** **180** **270**

REAR VIEW

DETERMINATION OF ELECTRIC ENERGY STORAGE / CONVERSION DEVICE ELECTROYTE COLLECTION TIME PERIOD

Rollover Stage	Rotation Time (spec. 1-3 min)				FMVSS 301 Hold Time		Total Time				Next Whole Minute Interval	
0° - 90°	1	minutes	57	seconds	5	minutes	6	minutes	57	seconds	7	minutes
90° - 180°	1	minutes	55	seconds	5	minutes	6	minutes	55	seconds	7	minutes
180° - 270°	1	minutes	53	seconds	5	minutes	6	minutes	53	seconds	7	minutes
270° - 360°	1	minutes	57	seconds	5	minutes	6	minutes	57	seconds	7	minutes

ACTUAL TEST VEHICLE ELECTRIC ENERGY STORAGE/CONVERSION DEVICE ELECTROLYTE SPILLAGE

Rollover Stage	Electric Energy Storage/Conversion Device Electrolyte Spillage (L)	Spillage Location
0° to 90°	0	Not Applicable
90° to 180°	0	Not Applicable
180° to 270°	0	Not Applicable
270° to 360°	0	Not Applicable

Total Spillage: 0 L

	Yes, Fail	No, Pass
Is the total spillage of Electric Energy Storage/Conversion Device electrolyte greater than 5.0 Liters?		X
Is Electric Energy Storage/Conversion Device electrolyte spillage visible in the passenger compartment?		X

DATA SHEET 5 (CONTINUED)

STATIC ROLLOVER TEST DATA

VOLTMETER INFORMATION

Make:	Fluke
Model:	177
Serial Number:	61660495
Internal Impedance Value (MΩ):	50
Nominal Electric Energy Storage/Conversion Device Voltage (Vb) (V):	400
Record V1, V2, V1', V2' voltage measurements at the start of each successive increment of 90°, 180°, 270°, and 360° of the static rollover test.	

ELECTRICAL ISOLATION MEASUREMENT

V1 =	1.4	V	0°	Time:		Minutes		s
V1 =	0.9	V	90°	Time:	2	Minutes	13	s
V1 =	1.3	V	180°	Time:	2	Minutes	27	s
V1 =	1.1	V	270°	Time:	2	Minutes	21	s
V1 =	0.8	V	360°	Time:	2	Minutes	37	s
V2 =	0.0	V	0°	Time:		Minutes		s
V2 =	0.0	V	90°	Time:	2	Minutes	17	s
V2 =	0.0	V	180°	Time:	2	Minutes	31	s
V2 =	0.0	V	270°	Time:	2	Minutes	24	s
V2 =	0.0	V	360°	Time:	2	Minutes	41	s
V1' =	1.3	V	0°	Time:		Minutes		s
V1' =	0.6	V	90°	Time:	2	Minutes	25	s
V1' =	1.5	V	180°	Time:	2	Minutes	41	s
V1' =	1.0	V	270°	Time:	2	Minutes	37	s
V1' =	0.7	V	360°	Time:	2	Minutes	50	s
V2' =	0.0	V	0°	Time:		Minutes		s
V2' =	0.0	V	90°	Time:	2	Minutes	20	s
V2' =	0.0	V	180°	Time:	2	Minutes	35	s
V2' =	0.0	V	270°	Time:	2	Minutes	30	s
V2' =	0.0	V	360°	Time:	2	Minutes	45	s
Vb =	1.3	V	0°	Time:		Minutes		s
Vb =	0.9	V	90°	Time:	2	Minutes	10	s
Vb =	1.2	V	180°	Time:	2	Minutes	22	s
Vb =	1.2	V	270°	Time:	2	Minutes	17	s
Vb =	0.7	V	360°	Time:	2	Minutes	32	s

DATA SHEET 5 (CONTINUED)

STATIC ROLLOVER TEST DATA

ELECTRICAL ISOLATION CALCULATION

Note: If measured voltage is zero and results in a division by zero, record “Zero Volts”. This “zero voltage” condition is considered as being compliant.

Ri1 = Ro (1 + V2/V1) [(V1-V1’)/V1’]								
Ri1 =	17,392	Ω	0°	Time:		Minutes		s
Ri1 =	113,050	Ω	90°	Time:	2	Minutes	13	s
Ri1 =	30,147	Ω	180°	Time:	2	Minutes	27	s
Ri1 =	22,610	Ω	270°	Time:	2	Minutes	21	s
Ri1 =	32,300	Ω	360°	Time:	2	Minutes	37	s
Ri2 = Ro (1 + V1/V2) [(V2-V2’)/V2’]								
Ri2 =	Zero Volts	Ω	0°	Time:		Minutes		s
Ri2 =	Zero Volts	Ω	90°	Time:	2	Minutes	17	s
Ri2 =	Zero Volts	Ω	180°	Time:	2	Minutes	31	s
Ri2 =	Zero Volts	Ω	270°	Time:	2	Minutes	24	s
Ri2 =	Zero Volts	Ω	360°	Time:	2	Minutes	41	s
Ri = The lesser of Ri1 and Ri2								
Ri =	Zero Volts	Ω	0°	Time:		Minutes		s
Ri =	Zero Volts	Ω	90°	Time:	2	Minutes	25	s
Ri =	Zero Volts	Ω	180°	Time:	2	Minutes	41	s
Ri =	Zero Volts	Ω	270°	Time:	2	Minutes	37	s
Ri =	Zero Volts	Ω	360°	Time:	2	Minutes	50	s
Ri/Vb = Electrical Isolation Value/Nominal Battery Voltage Minimum Electrical Isolation Value is 500 Ω /V								
Ri/Vb =	Zero Volts	Ω/V	0°	Time:		Minutes		s
Ri/Vb =	Zero Volts	Ω/V	90°	Time:	2	Minutes	10	s
Ri/Vb =	Zero Volts	Ω/V	180°	Time:	2	Minutes	22	s
Ri/Vb =	Zero Volts	Ω/V	270°	Time:	2	Minutes	17	s
Ri/Vb =	Zero Volts	Ω/V	360°	Time:	2	Minutes	32	s

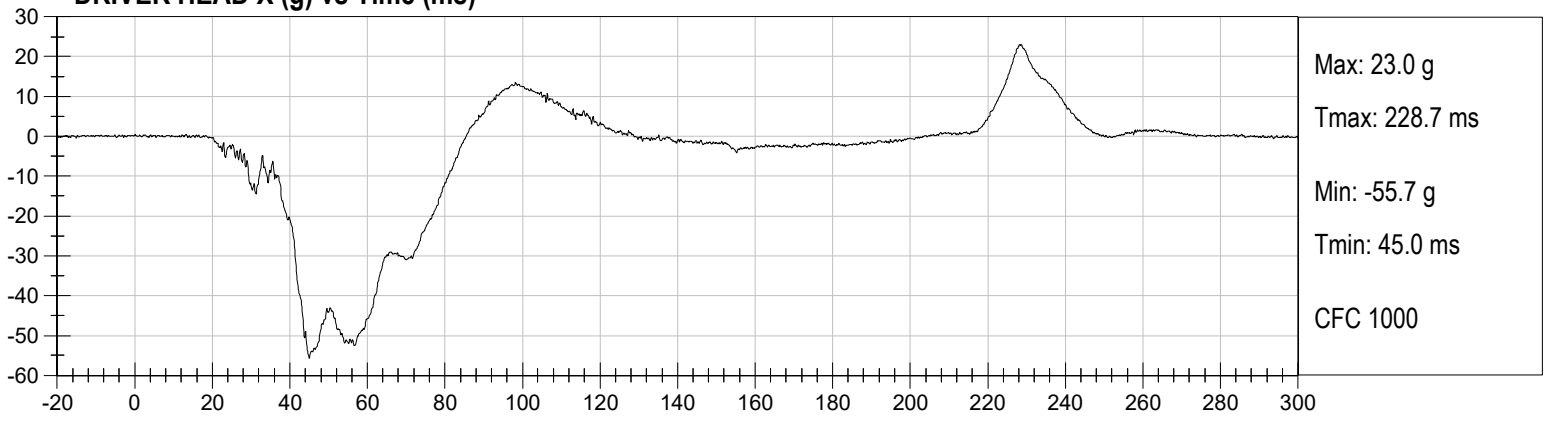
Is the measured Electrical Isolation Value:	Yes, Pass	No, Fail
≥500 Ω/V without electrical isolation monitoring	X	
≥100 Ω/V with electrical isolation monitoring		

APPENDIX A

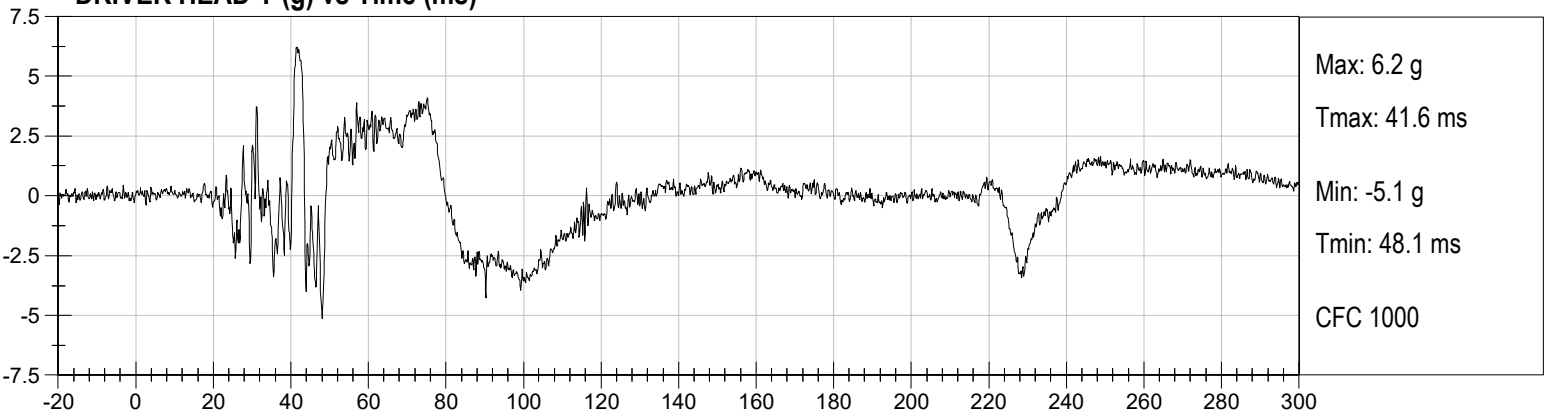
CRASH TEST DATA

TABLE OF DATA PLOTS

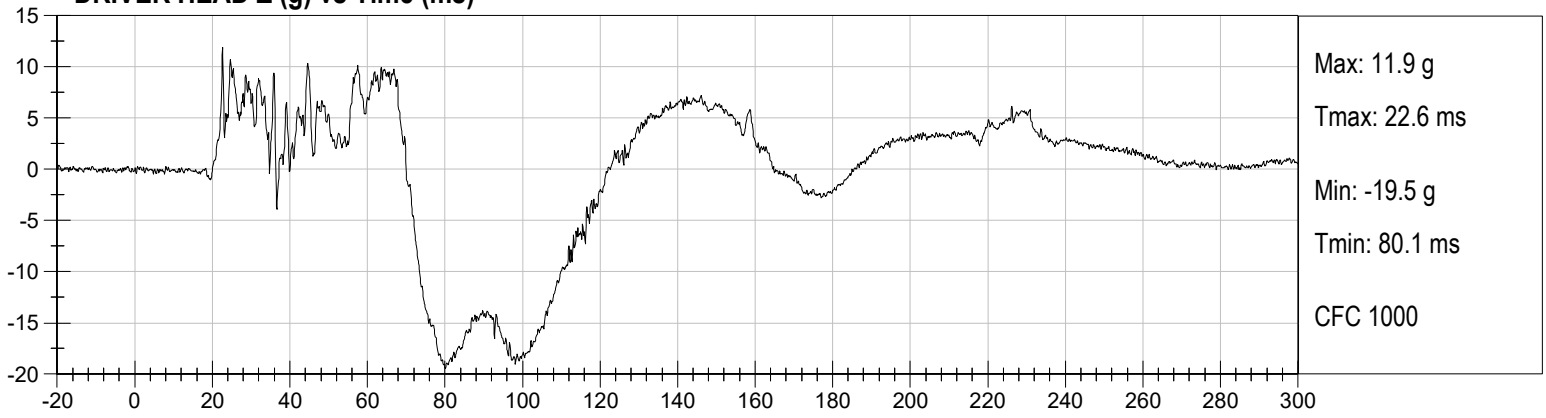
DRIVER HEAD X (g) vs Time (ms)



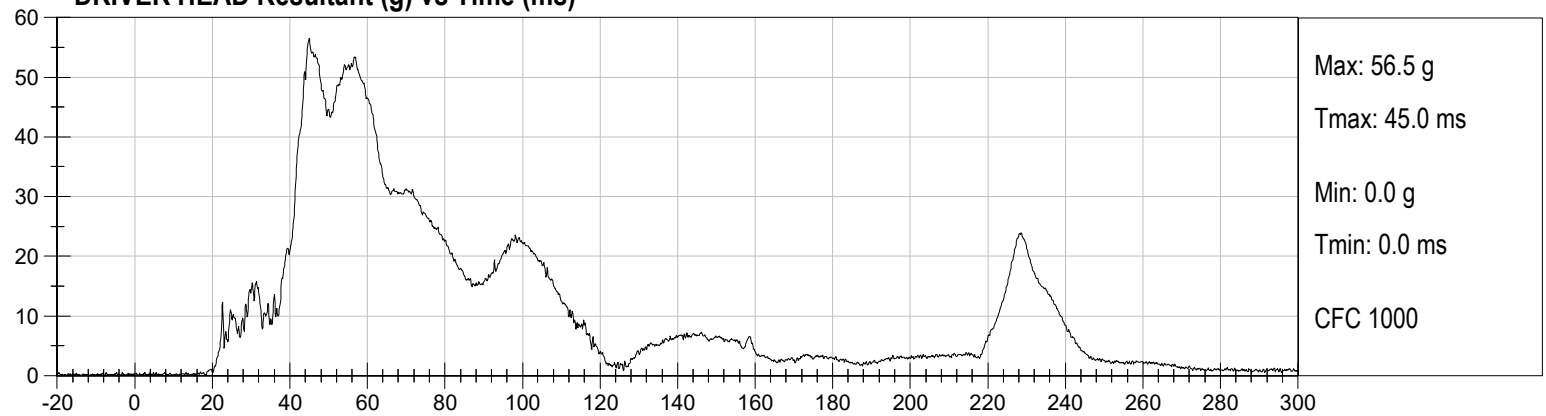
DRIVER HEAD Y (g) vs Time (ms)



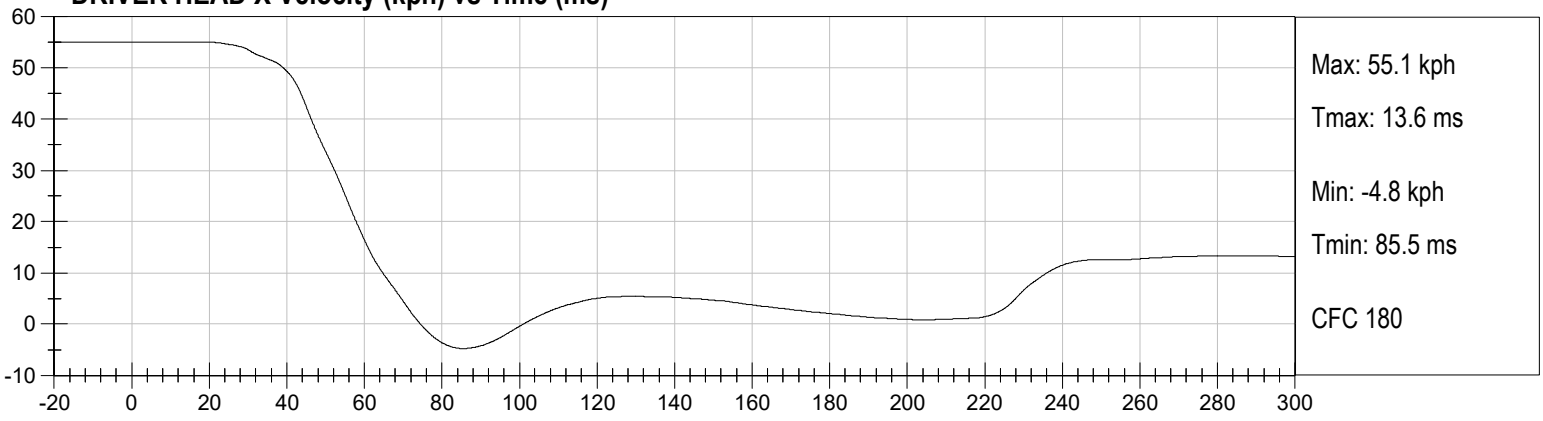
DRIVER HEAD Z (g) vs Time (ms)



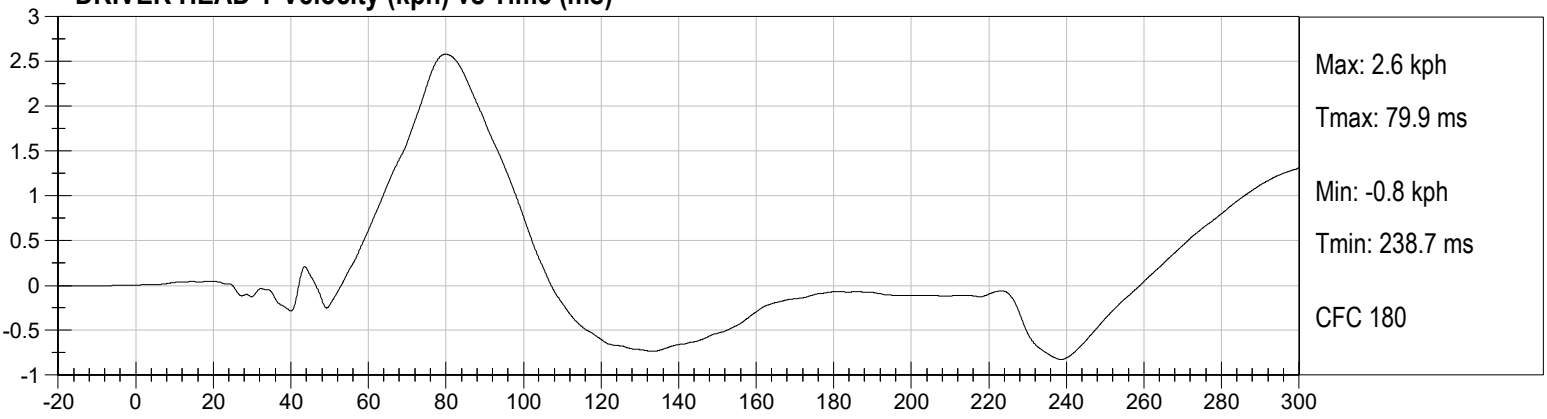
DRIVER HEAD Resultant (g) vs Time (ms)



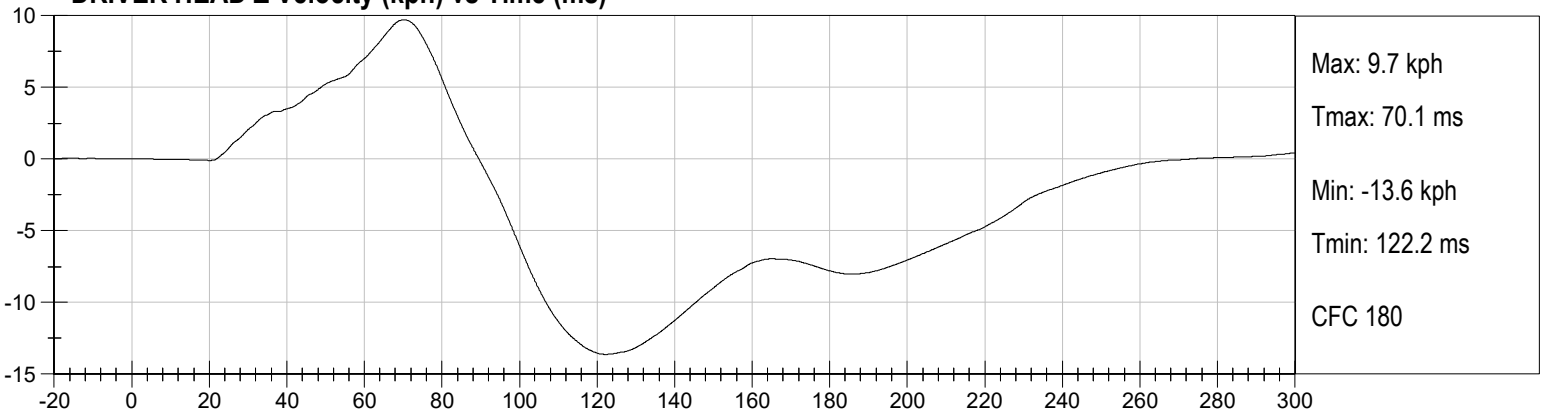
DRIVER HEAD X Velocity (kph) vs Time (ms)



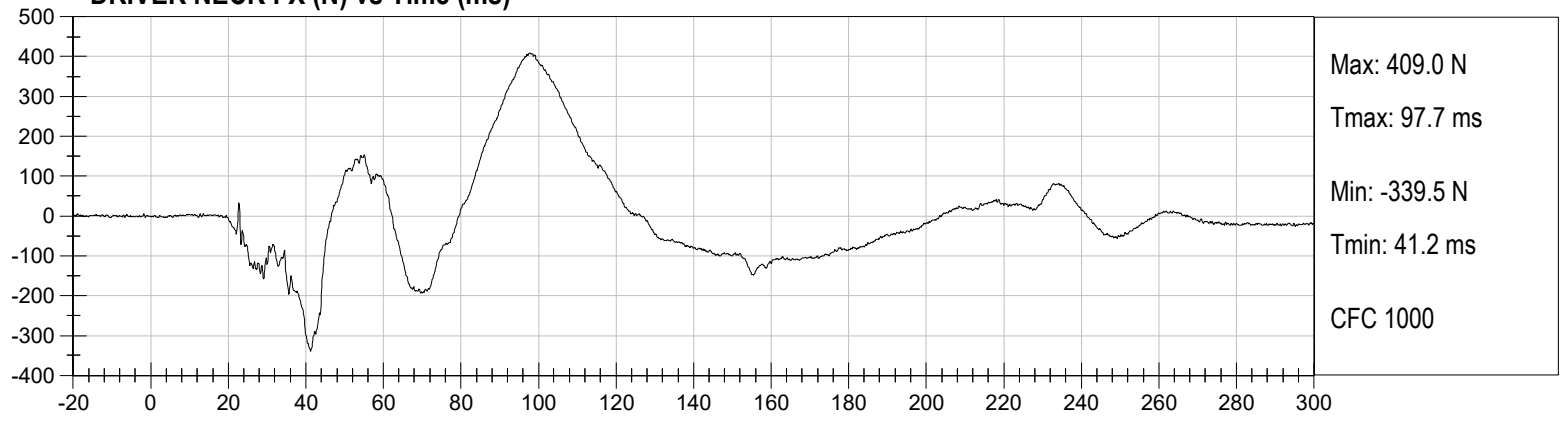
DRIVER HEAD Y Velocity (kph) vs Time (ms)



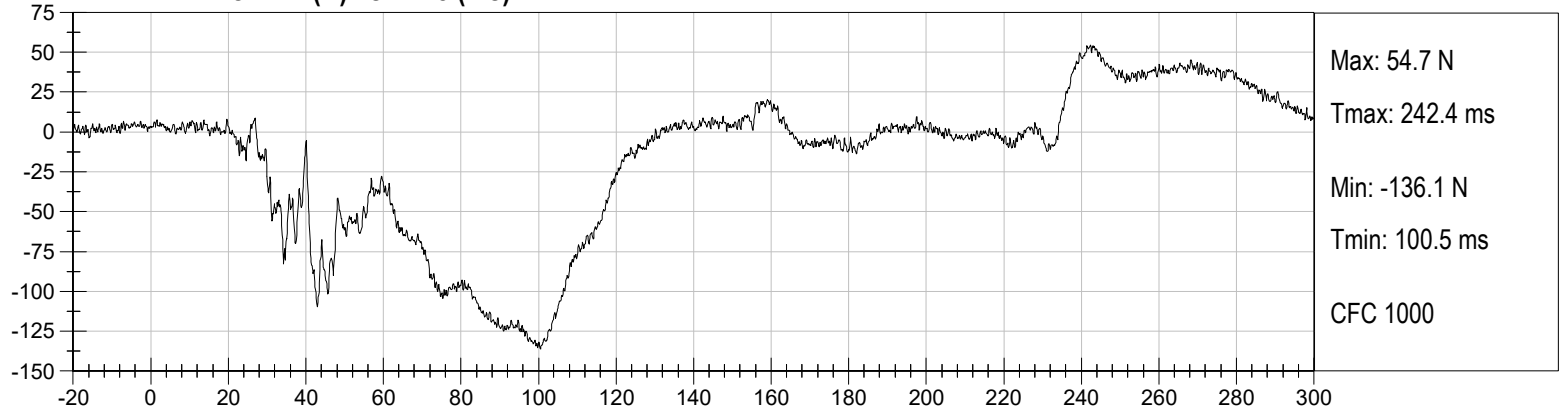
DRIVER HEAD Z Velocity (kph) vs Time (ms)



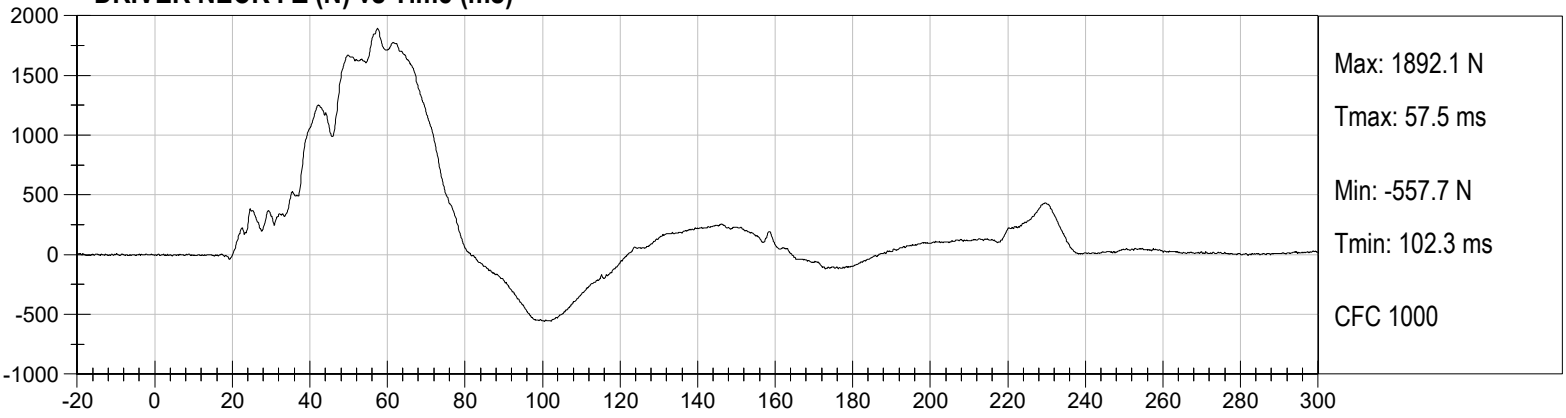
DRIVER NECK FX (N) vs Time (ms)



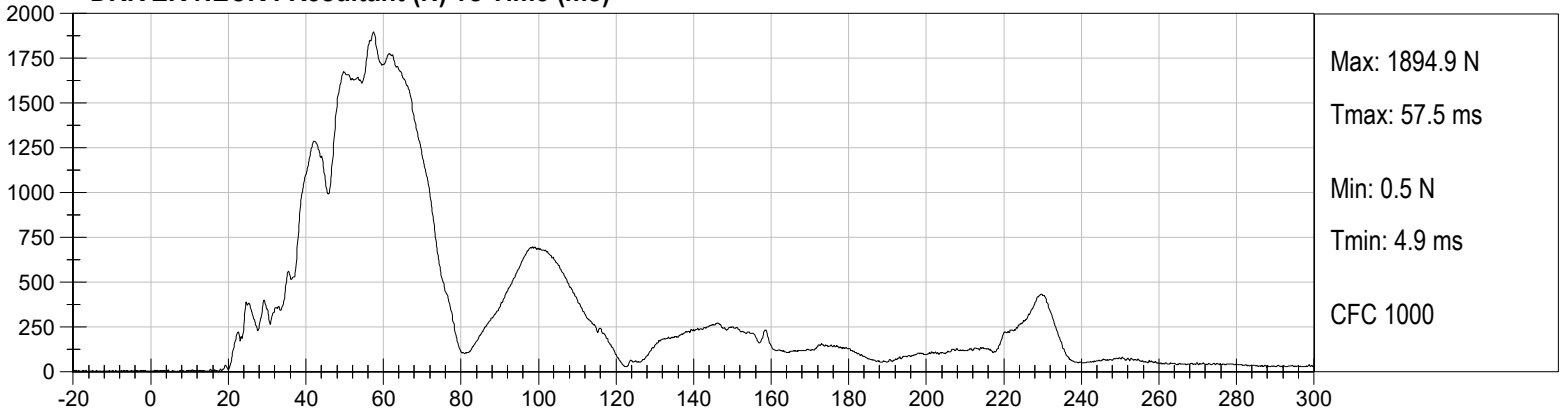
DRIVER NECK FY (N) vs Time (ms)



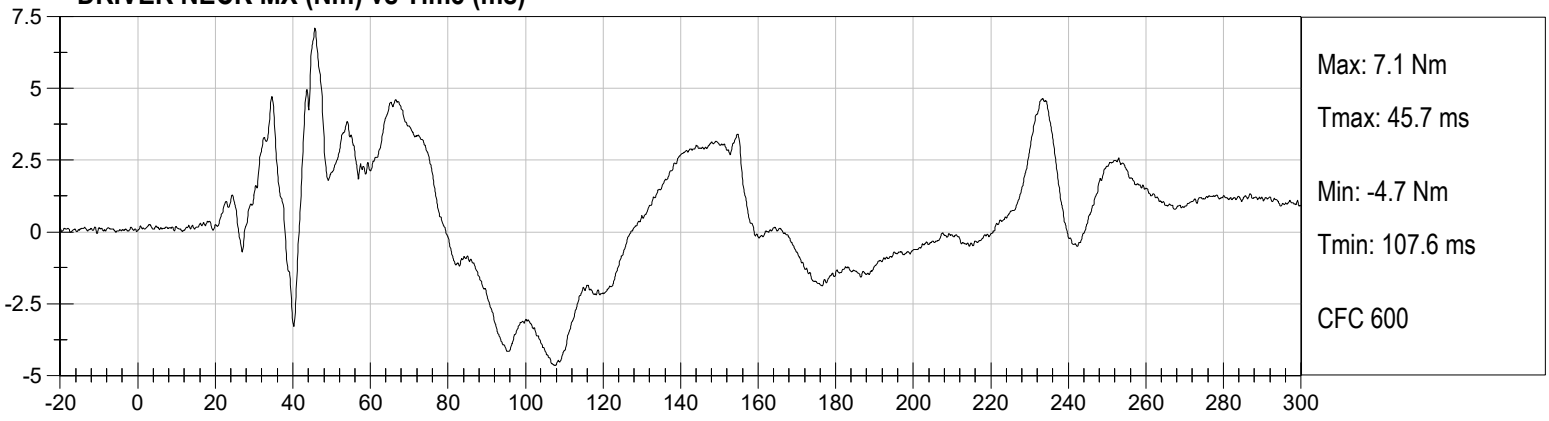
DRIVER NECK FZ (N) vs Time (ms)



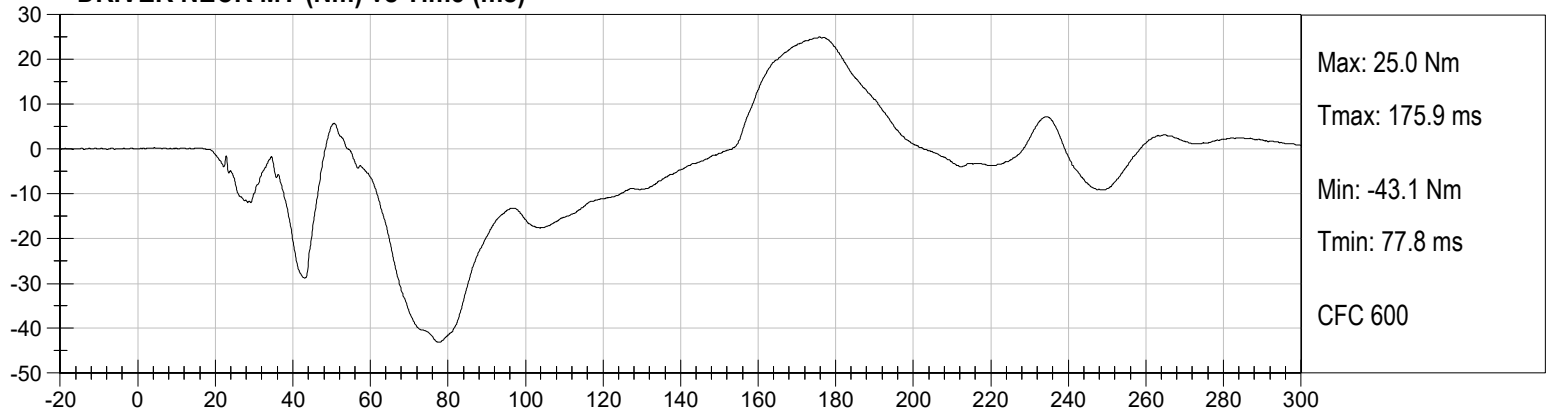
DRIVER NECK FResultant (N) vs Time (ms)



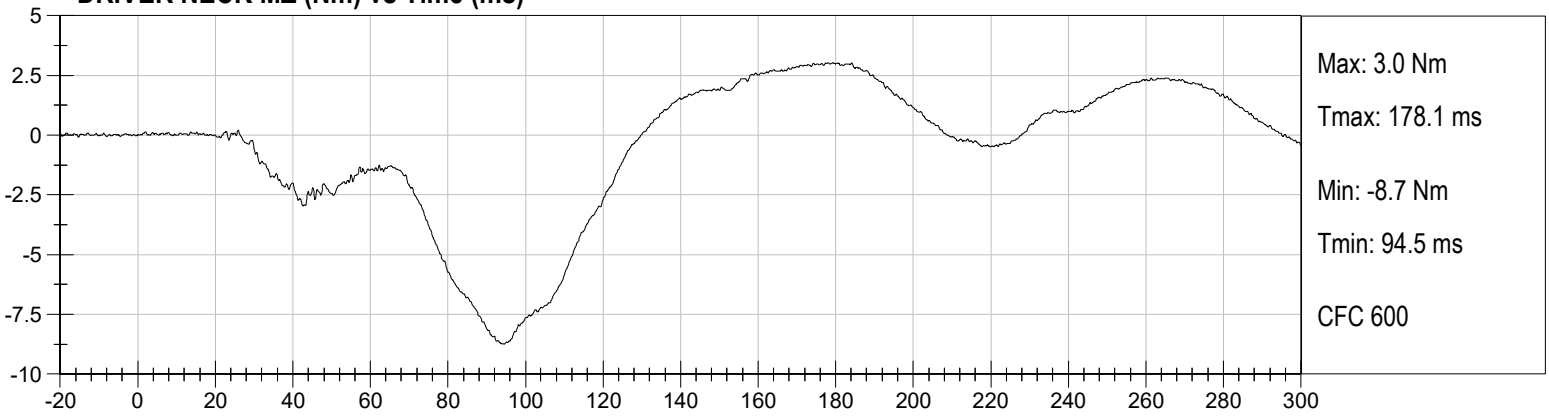
DRIVER NECK MX (Nm) vs Time (ms)



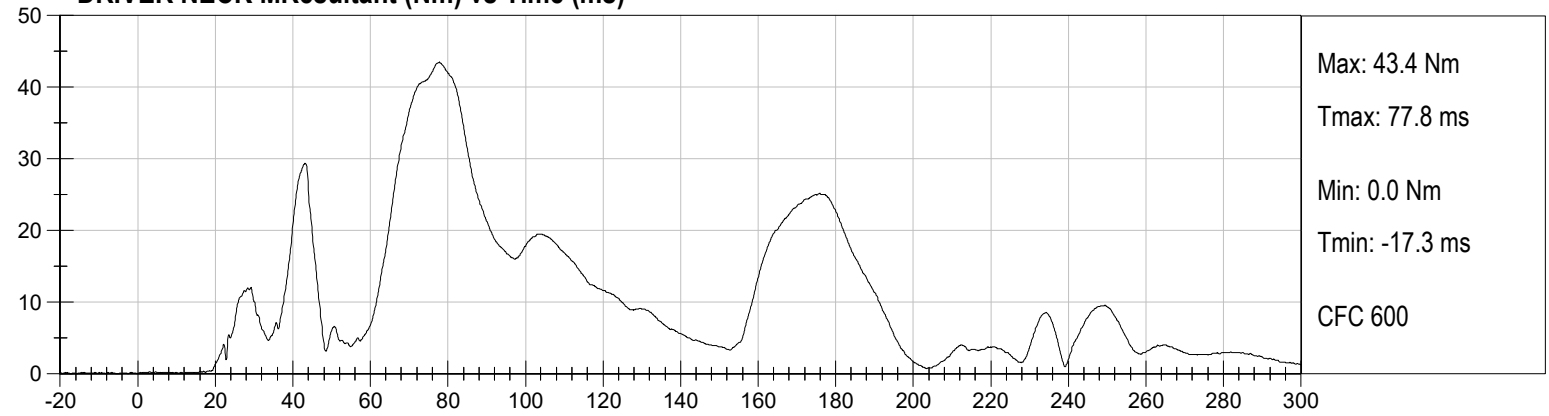
DRIVER NECK MY (Nm) vs Time (ms)



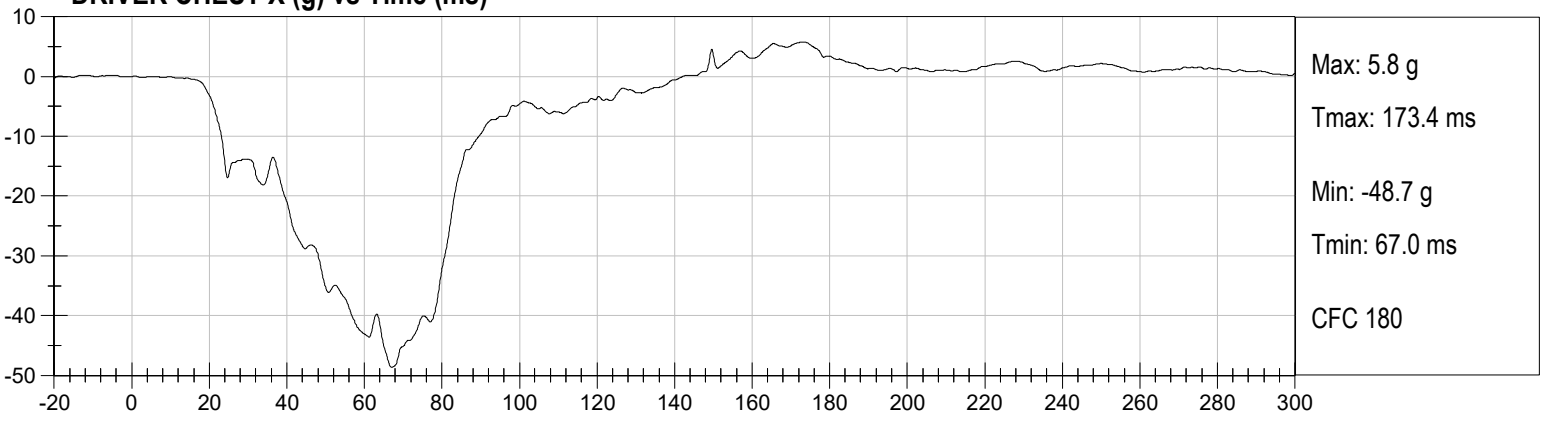
DRIVER NECK MZ (Nm) vs Time (ms)



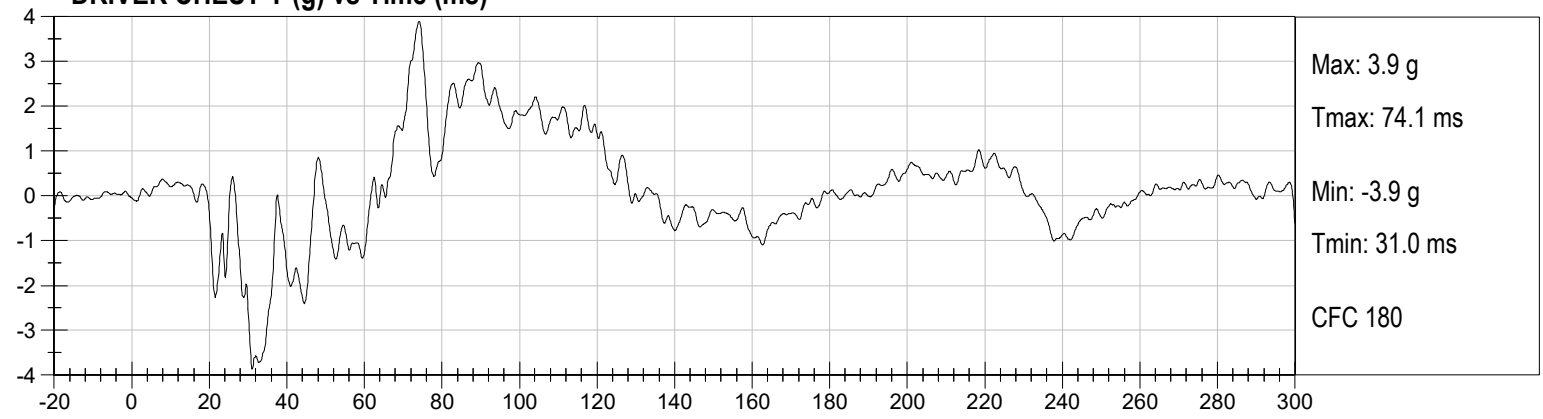
DRIVER NECK MResultant (Nm) vs Time (ms)



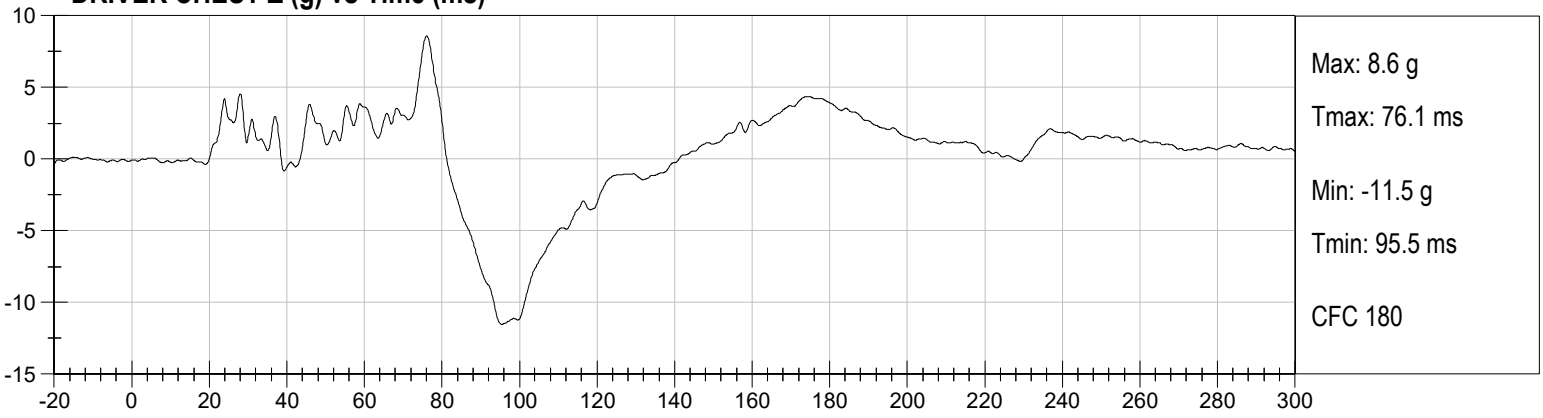
DRIVER CHEST X (g) vs Time (ms)



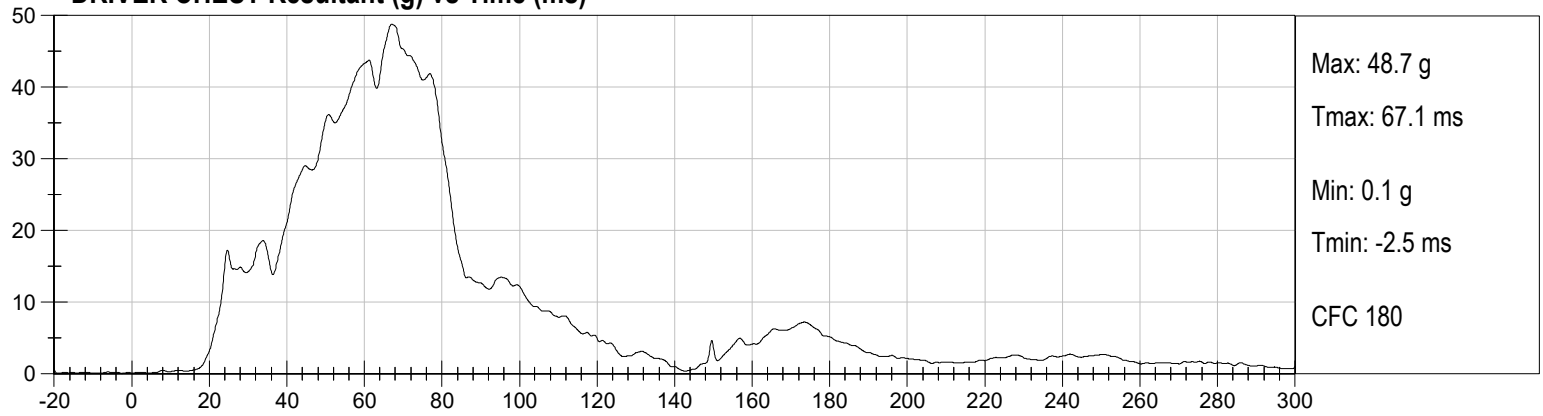
DRIVER CHEST Y (g) vs Time (ms)



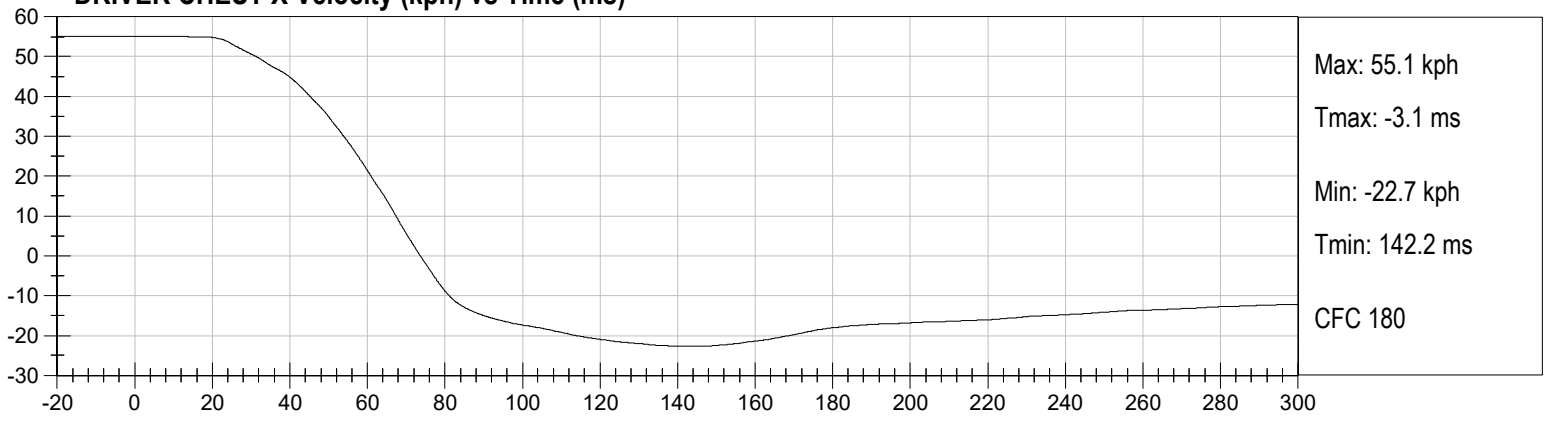
DRIVER CHEST Z (g) vs Time (ms)



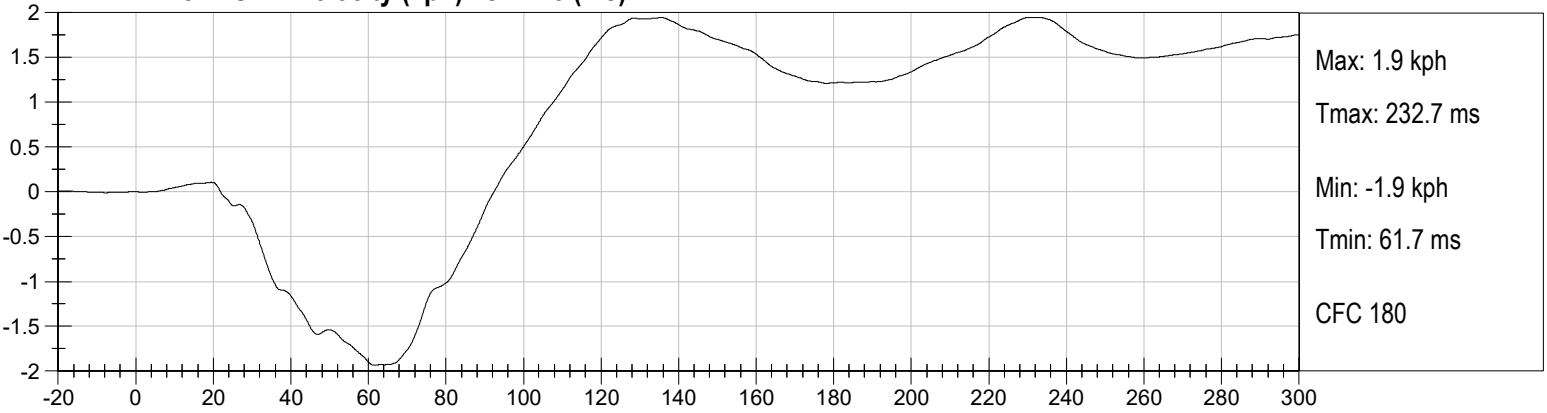
DRIVER CHEST Resultant (g) vs Time (ms)



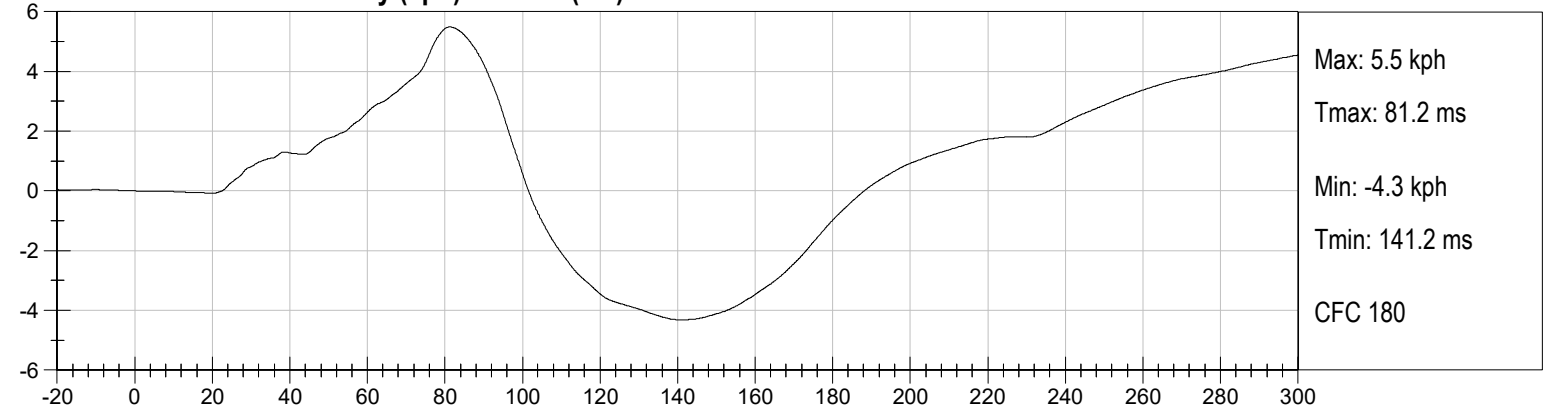
DRIVER CHEST X Velocity (kph) vs Time (ms)



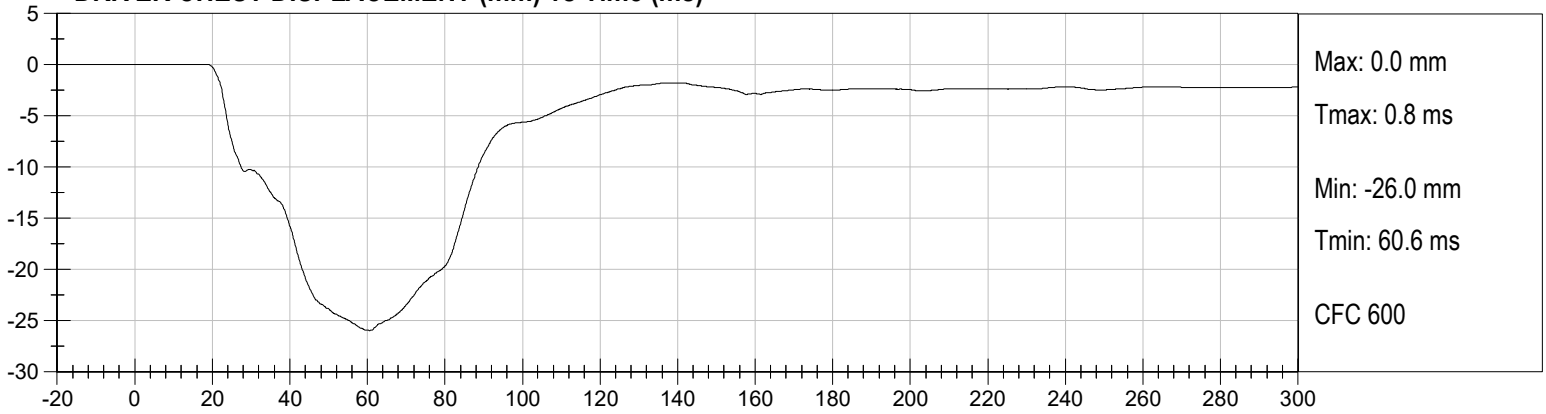
DRIVER CHEST Y Velocity (kph) vs Time (ms)



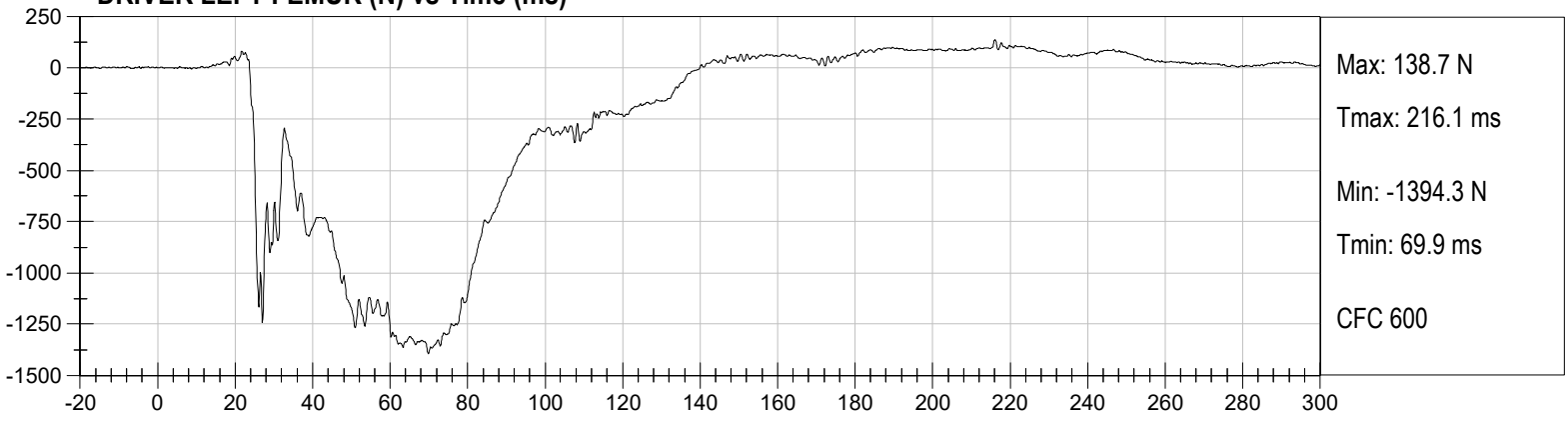
DRIVER CHEST Z Velocity (kph) vs Time (ms)



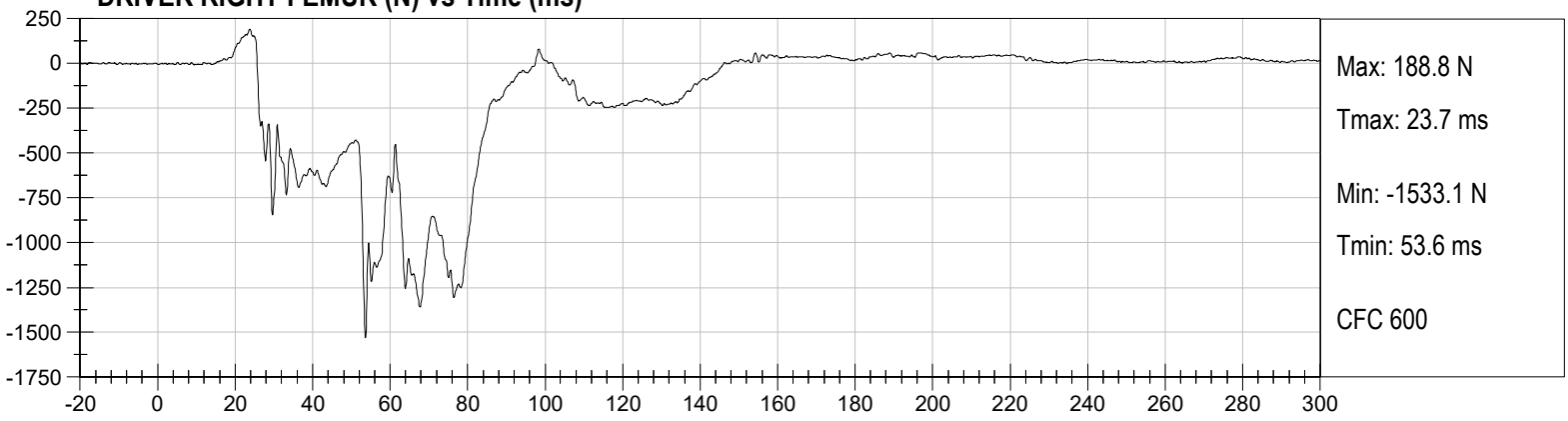
DRIVER CHEST DISPLACEMENT (mm) vs Time (ms)



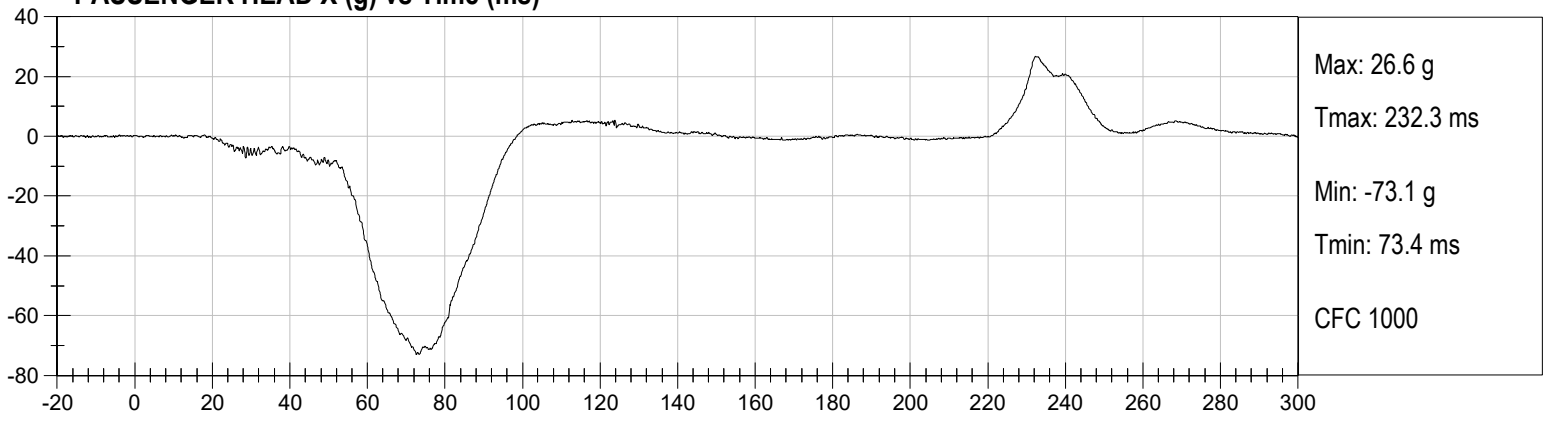
DRIVER LEFT FEMUR (N) vs Time (ms)



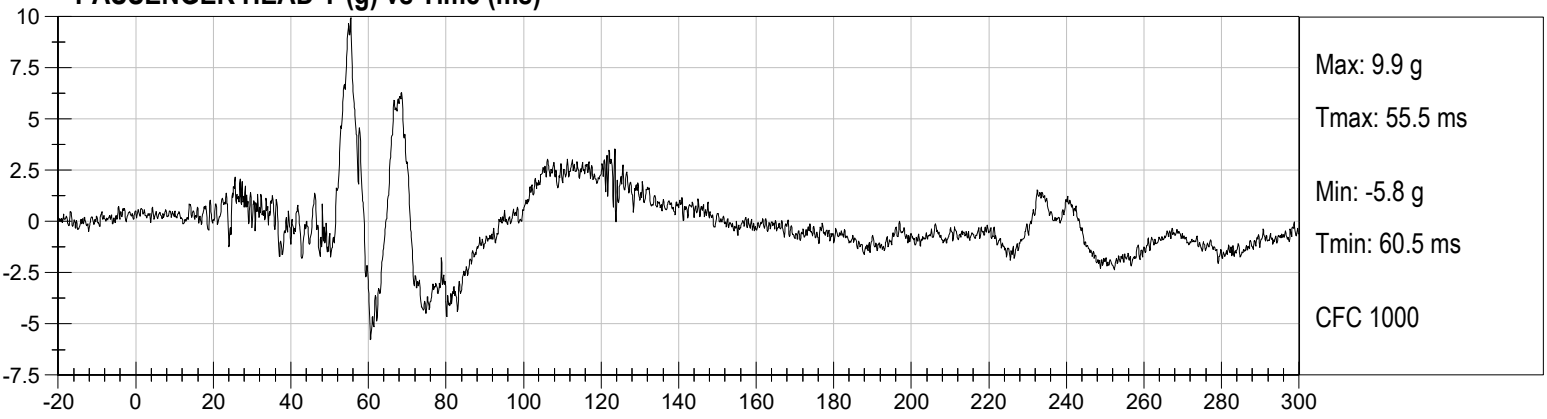
DRIVER RIGHT FEMUR (N) vs Time (ms)



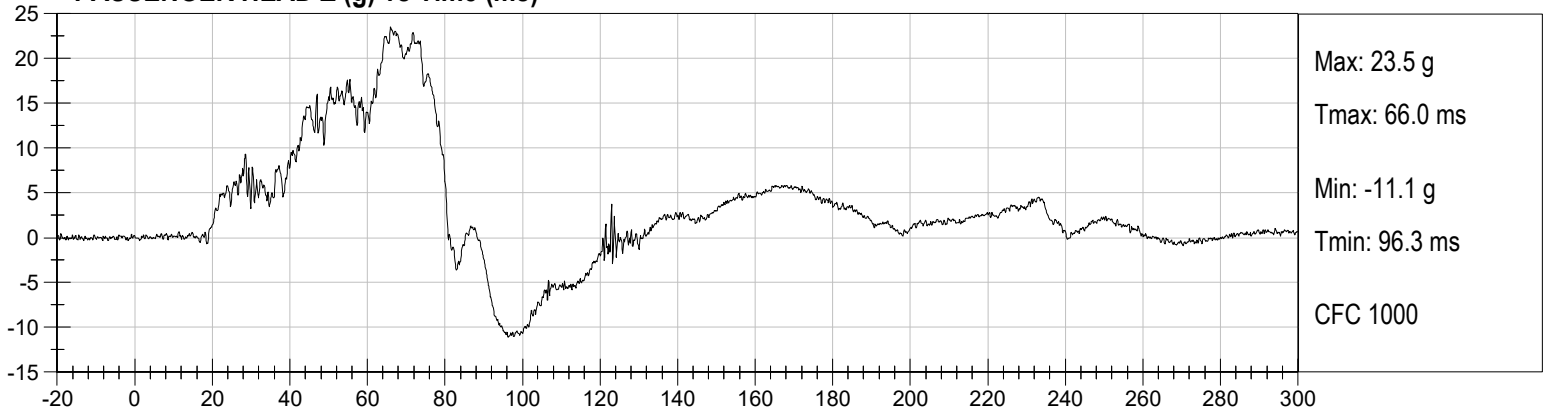
PASSENGER HEAD X (g) vs Time (ms)



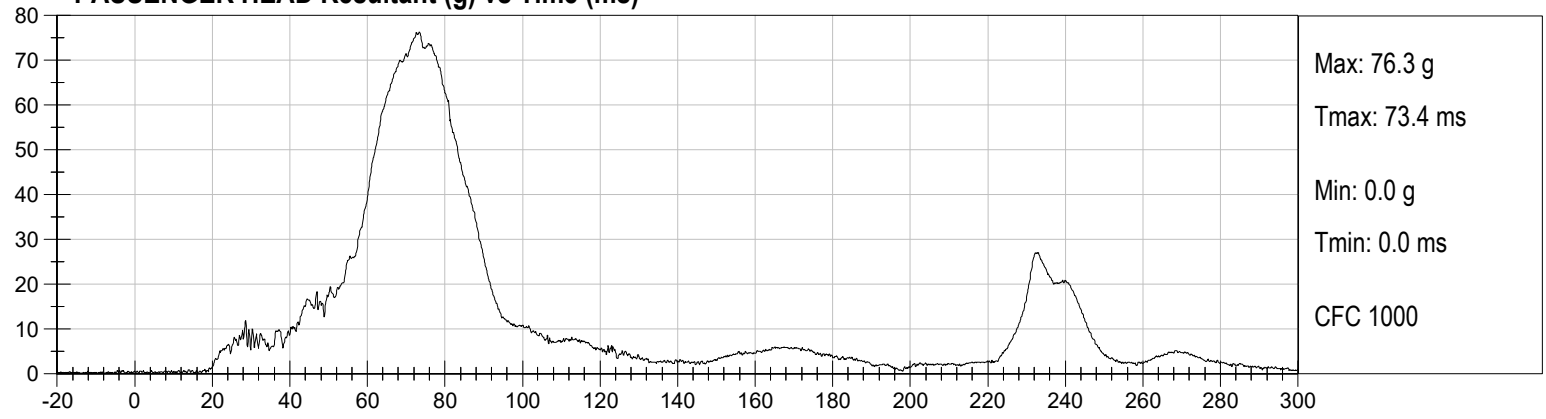
PASSENGER HEAD Y (g) vs Time (ms)



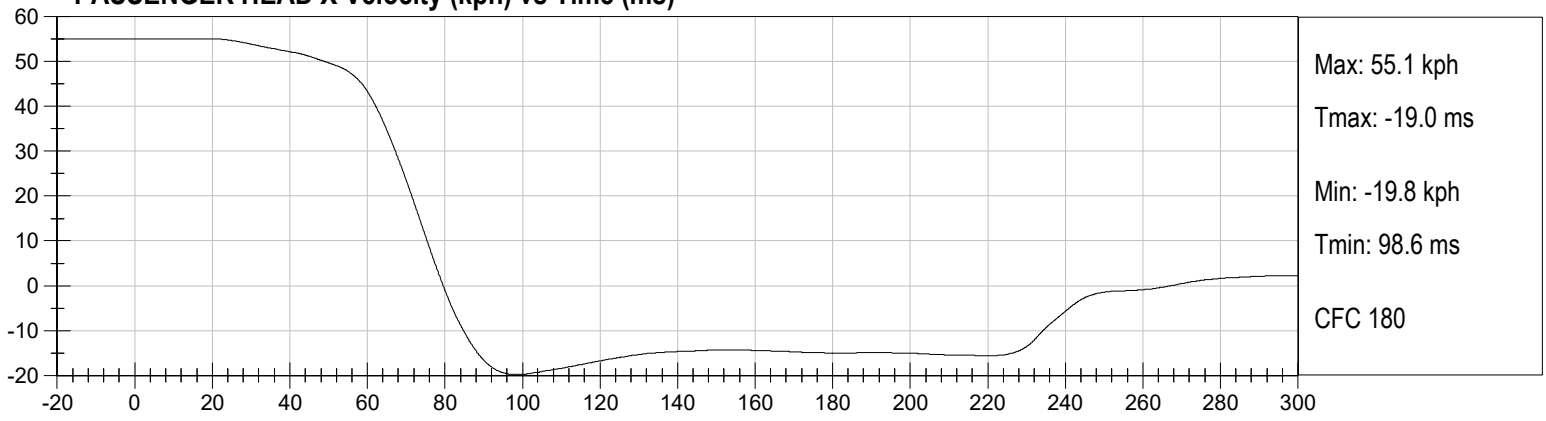
PASSENGER HEAD Z (g) vs Time (ms)



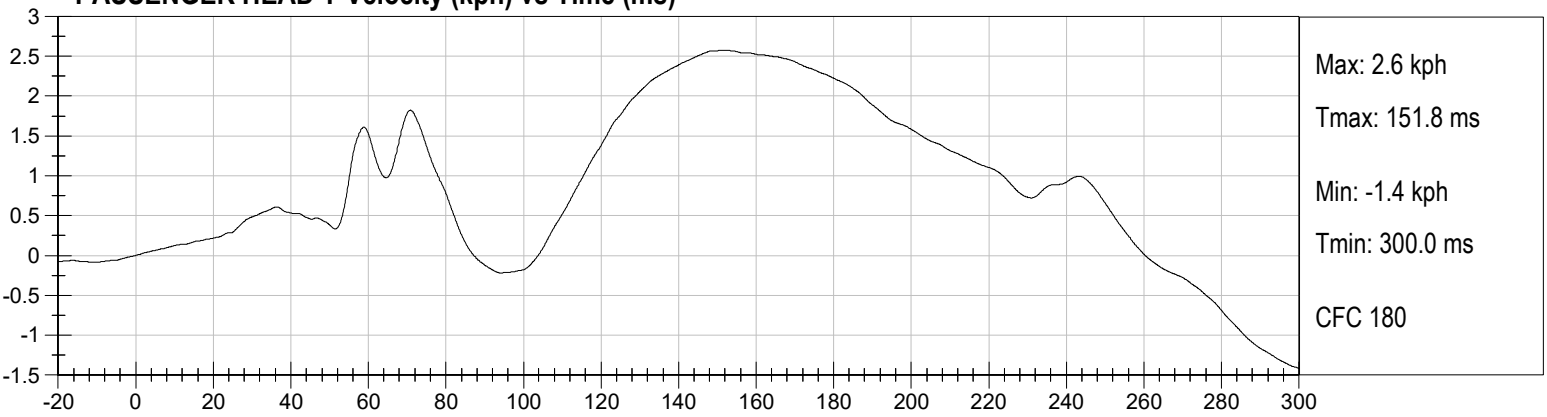
PASSENGER HEAD Resultant (g) vs Time (ms)



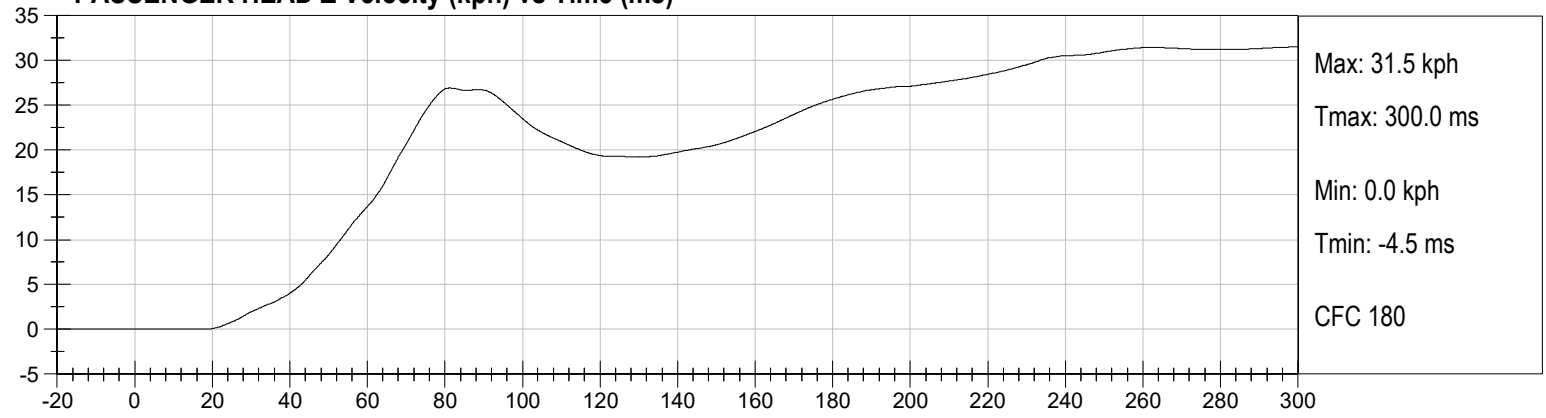
PASSENGER HEAD X Velocity (kph) vs Time (ms)



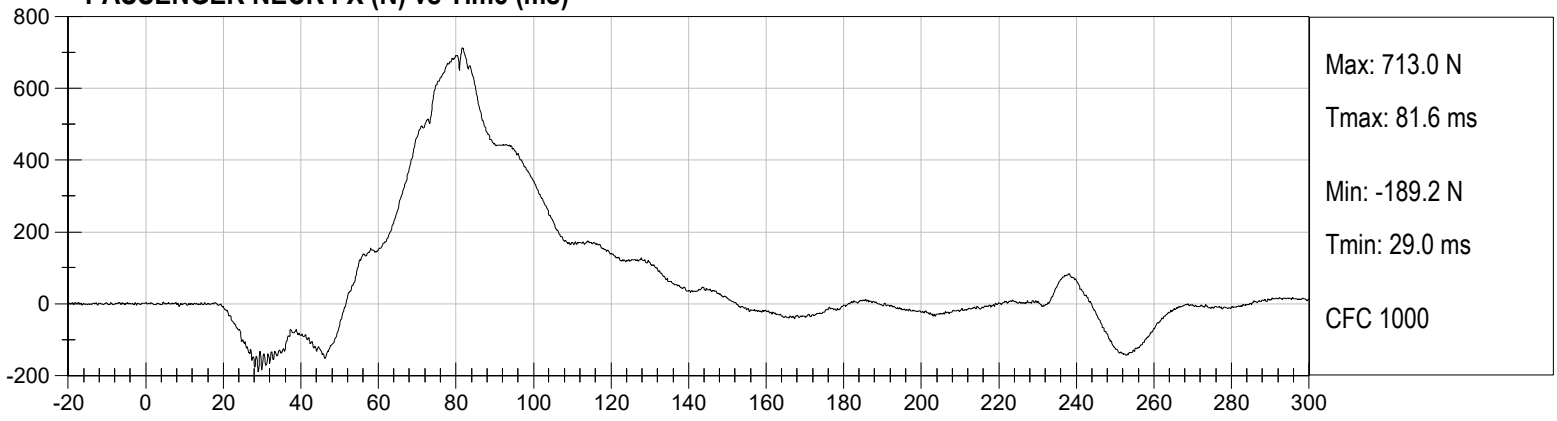
PASSENGER HEAD Y Velocity (kph) vs Time (ms)



PASSENGER HEAD Z Velocity (kph) vs Time (ms)

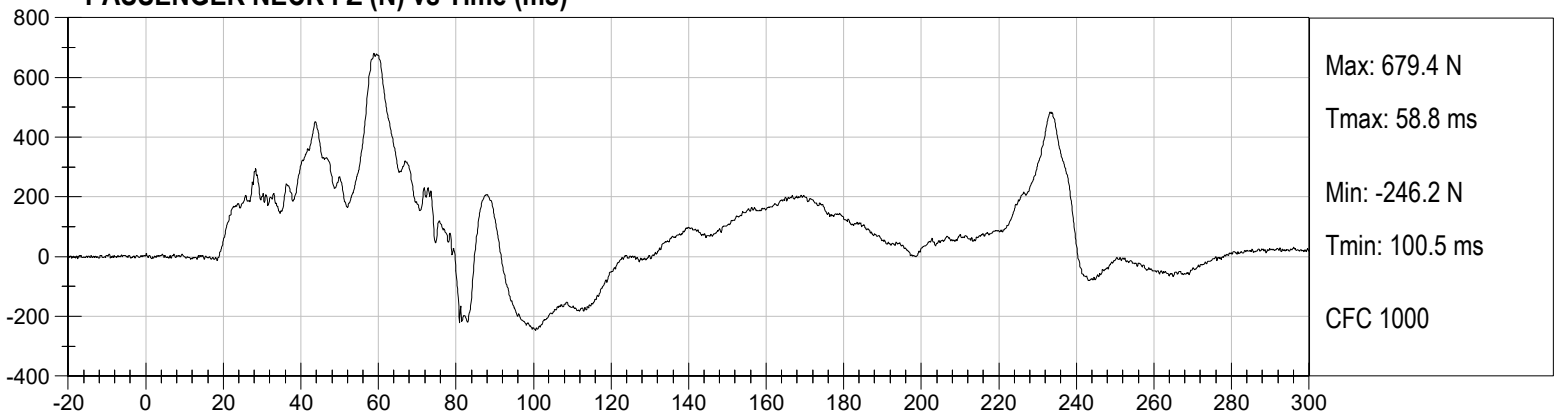


PASSENGER NECK FX (N) vs Time (ms)

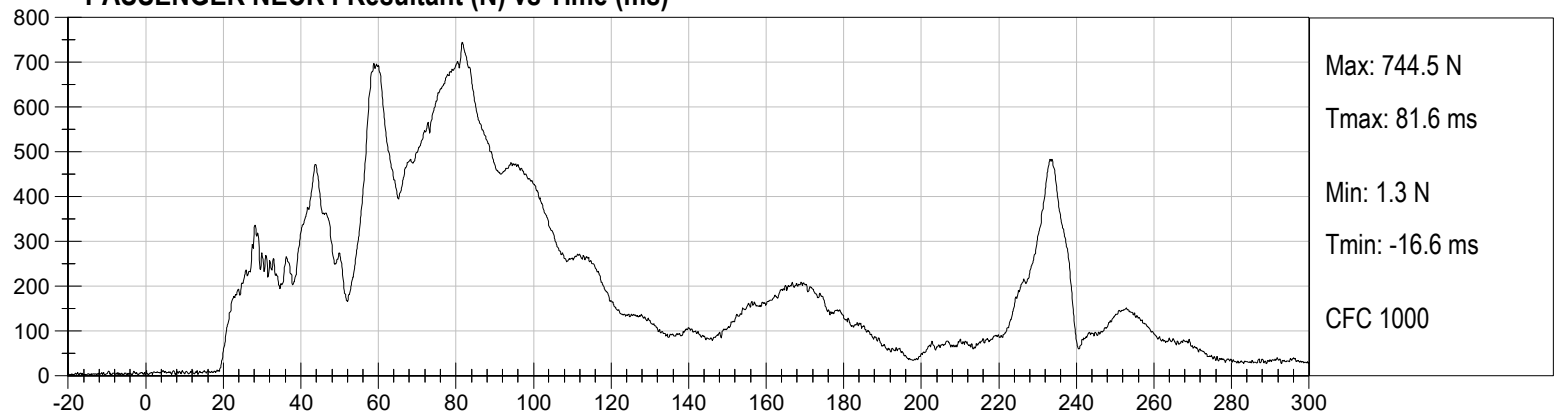


PASSENGER NECK FY (N) vs Time (ms)

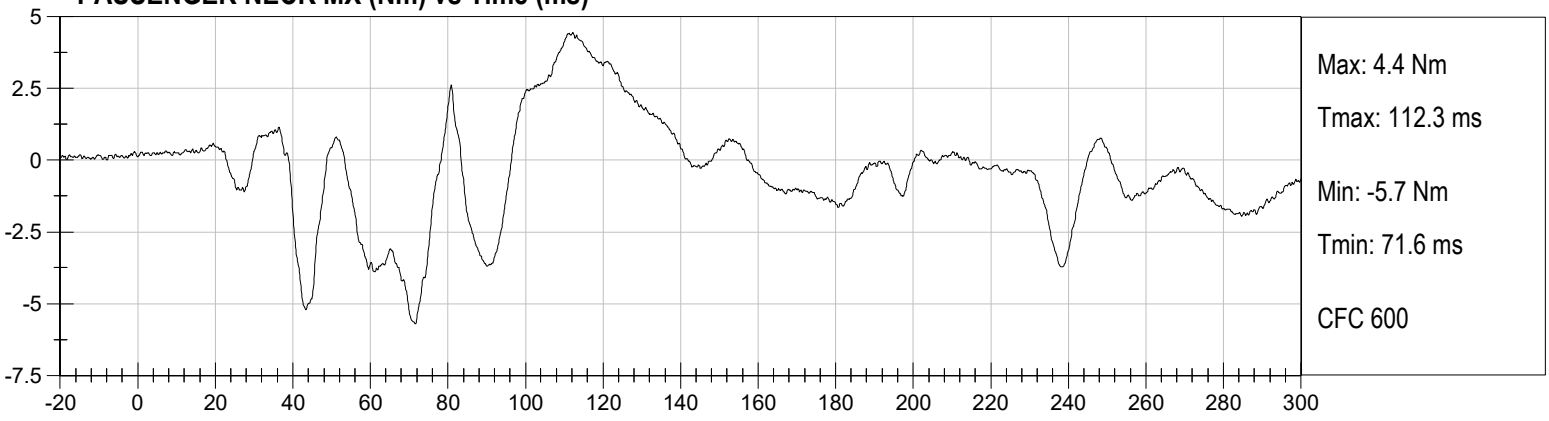
PASSENGER NECK FZ (N) vs Time (ms)



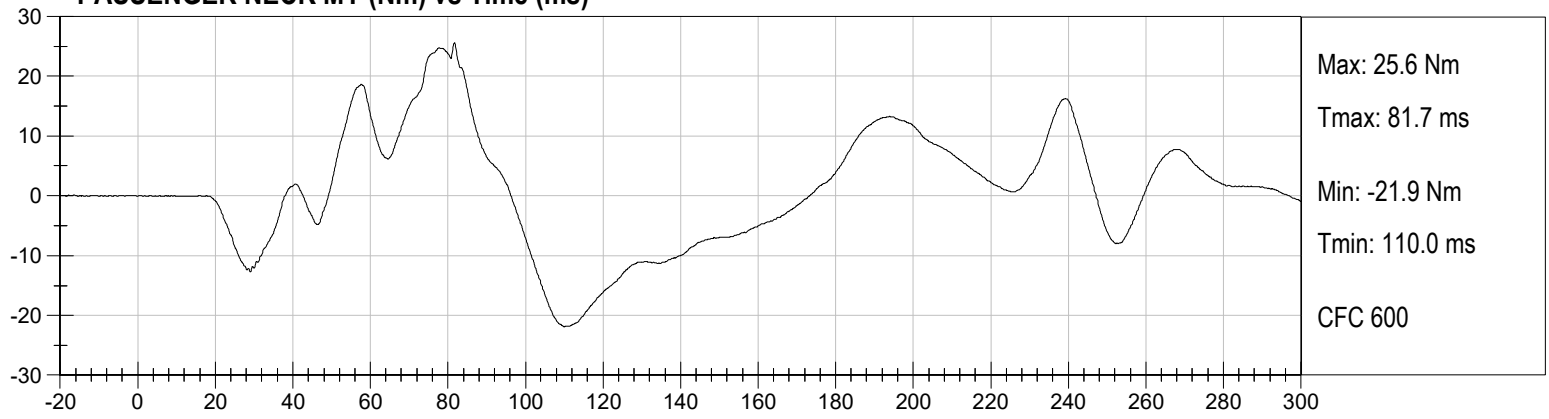
PASSENGER NECK FResultant (N) vs Time (ms)



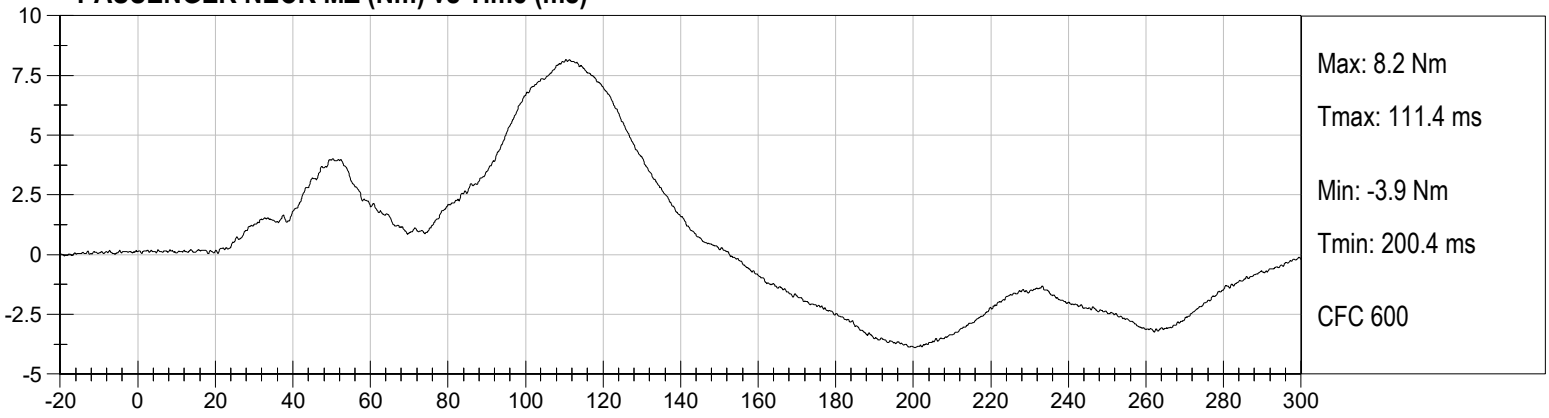
PASSENGER NECK MX (Nm) vs Time (ms)



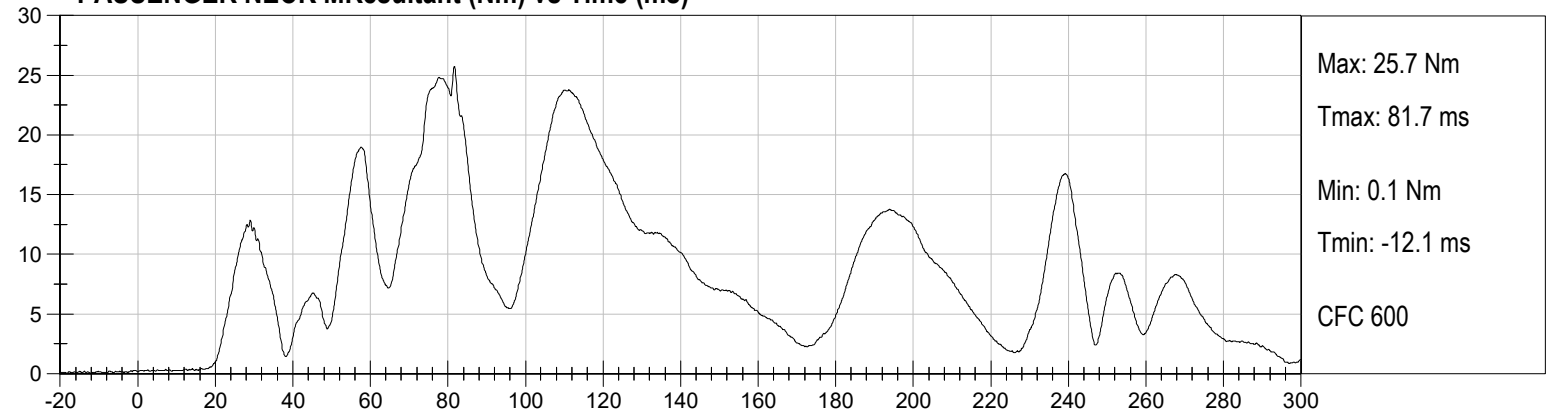
PASSENGER NECK MY (Nm) vs Time (ms)



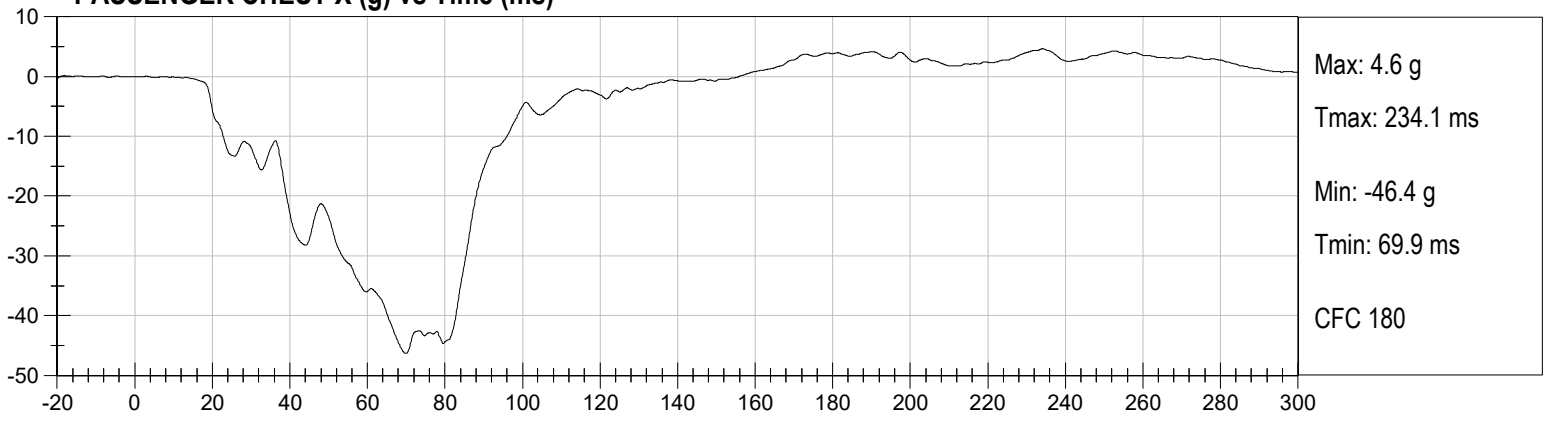
PASSENGER NECK MZ (Nm) vs Time (ms)



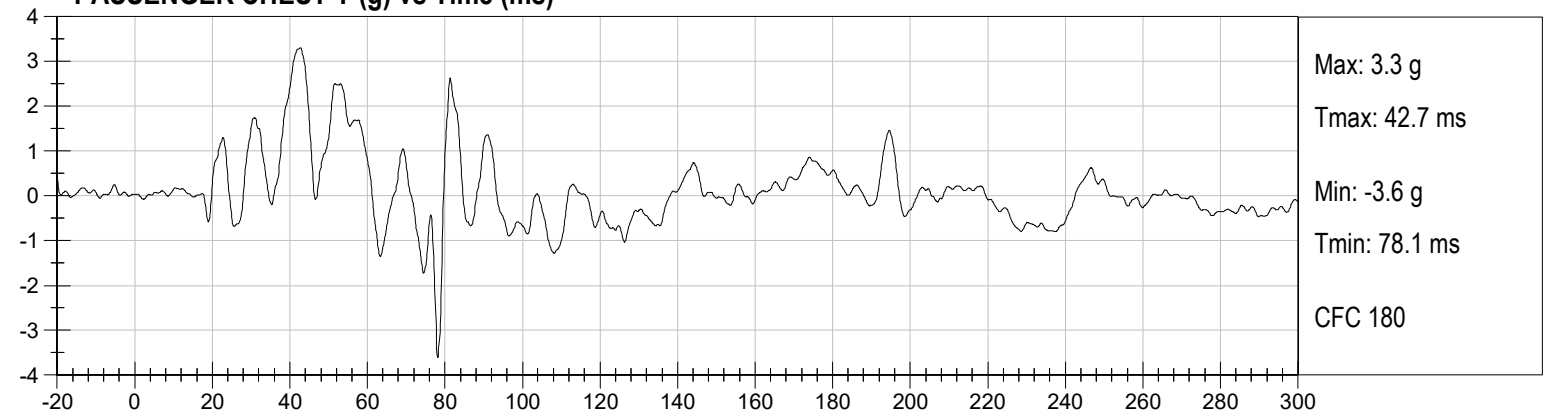
PASSENGER NECK MResultant (Nm) vs Time (ms)



PASSENGER CHEST X (g) vs Time (ms)

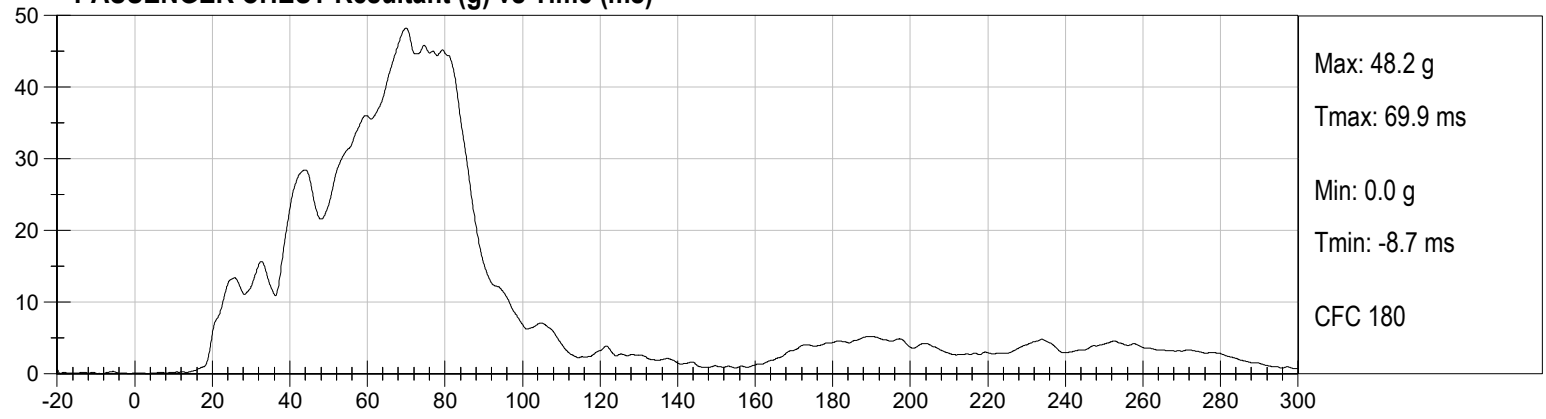


PASSENGER CHEST Y (g) vs Time (ms)

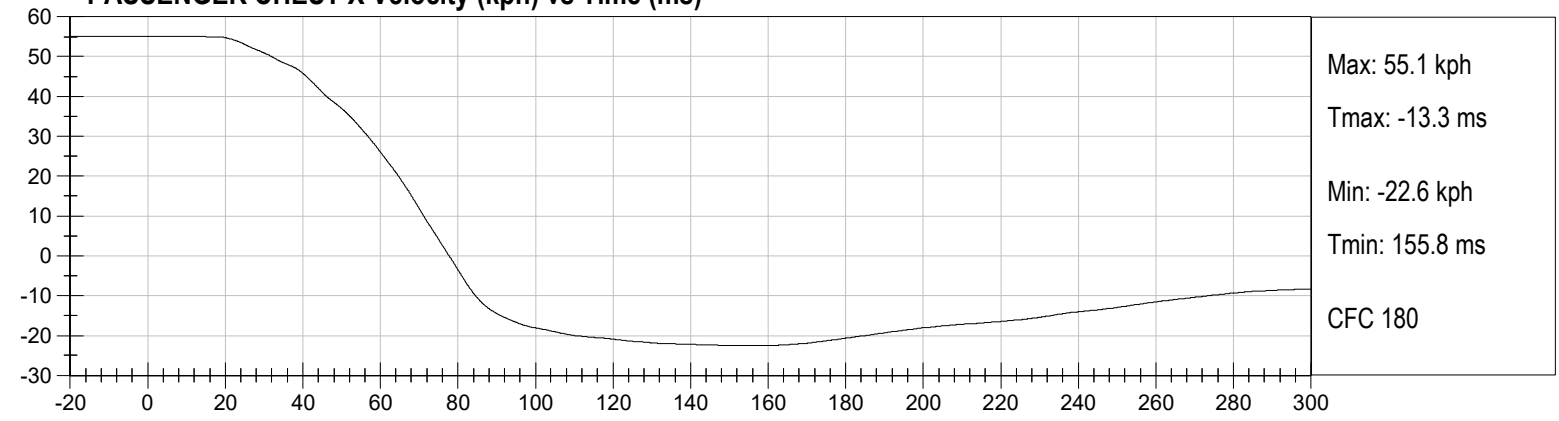


PASSENGER CHEST Z (g) vs Time (ms)

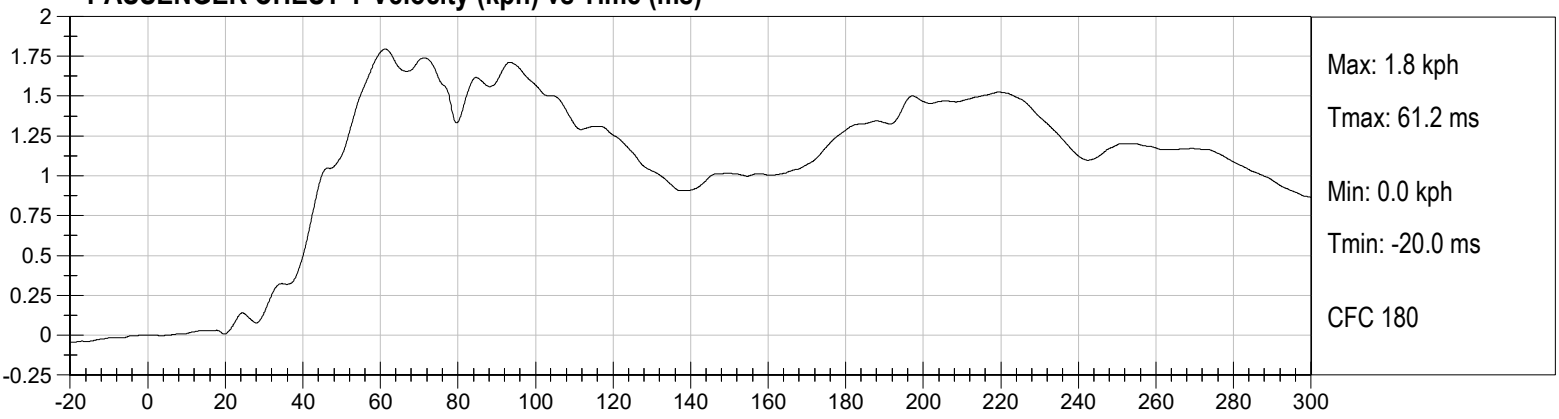
PASSENGER CHEST Resultant (g) vs Time (ms)



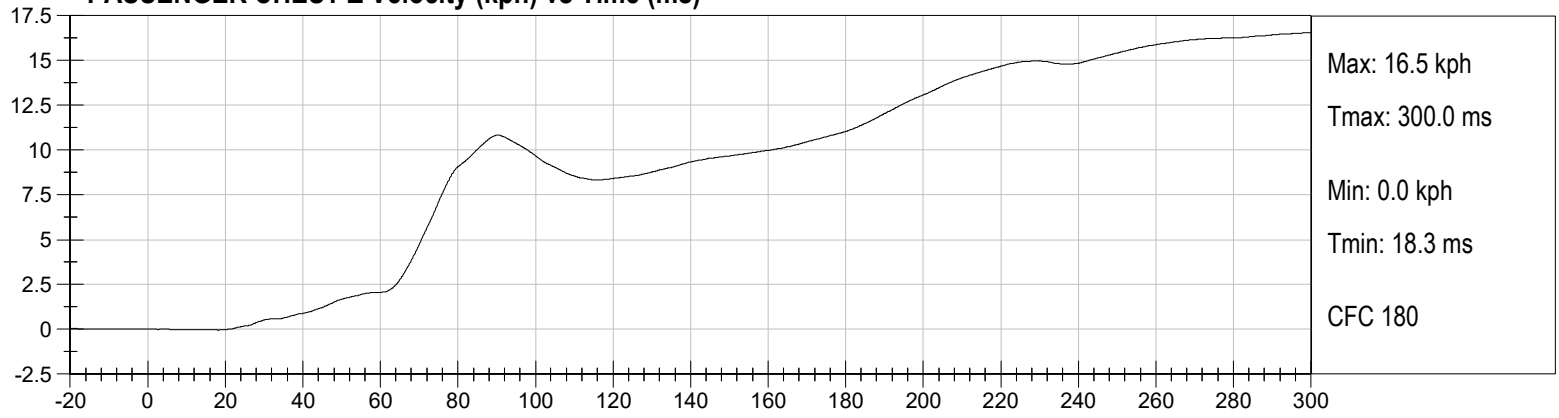
PASSENGER CHEST X Velocity (kph) vs Time (ms)



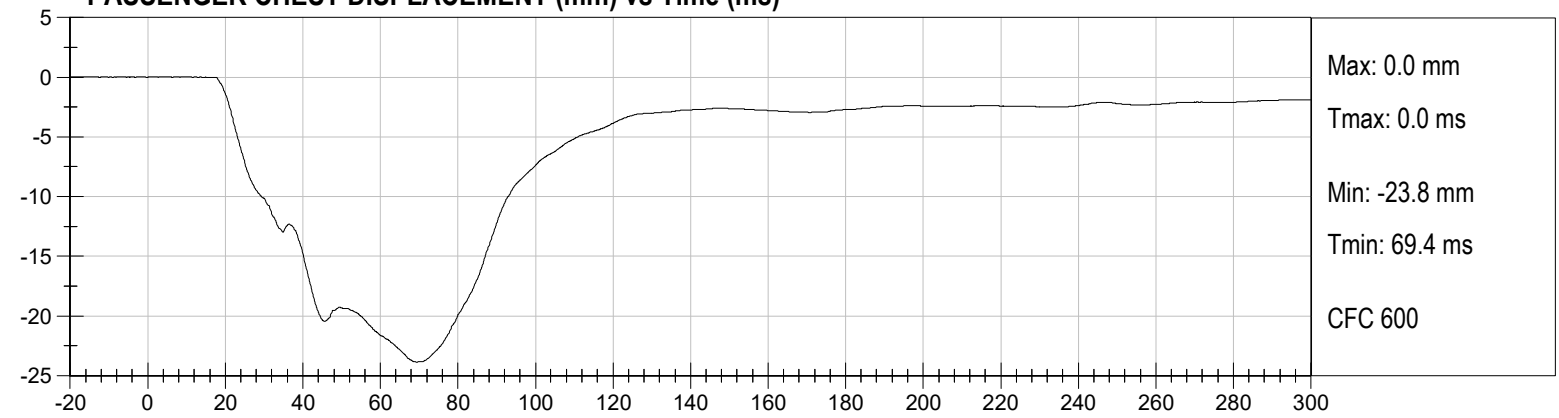
PASSENGER CHEST Y Velocity (kph) vs Time (ms)



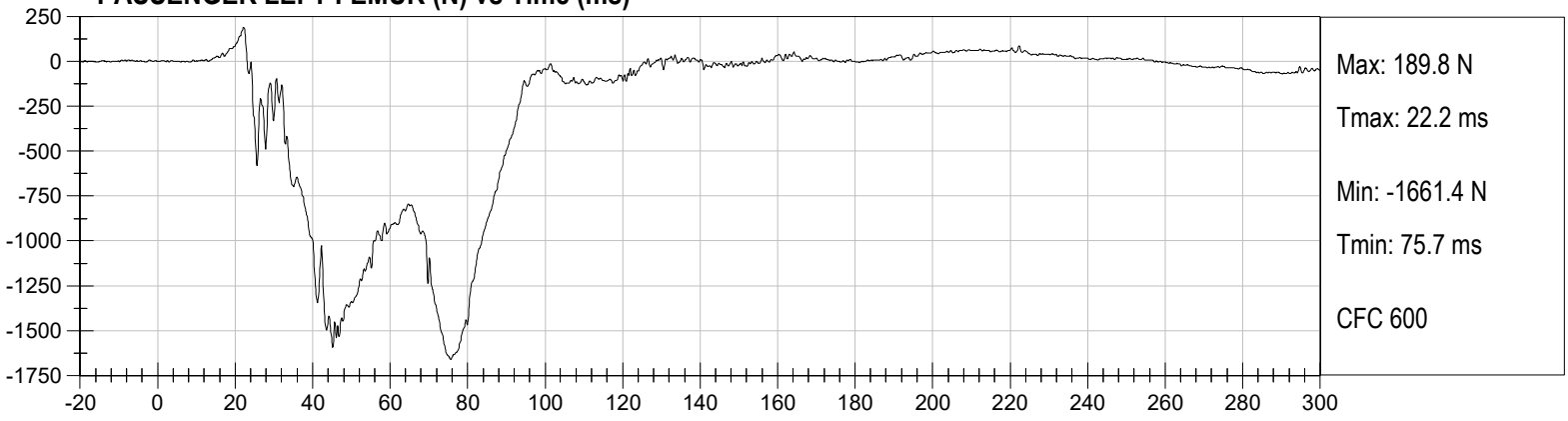
PASSENGER CHEST Z Velocity (kph) vs Time (ms)



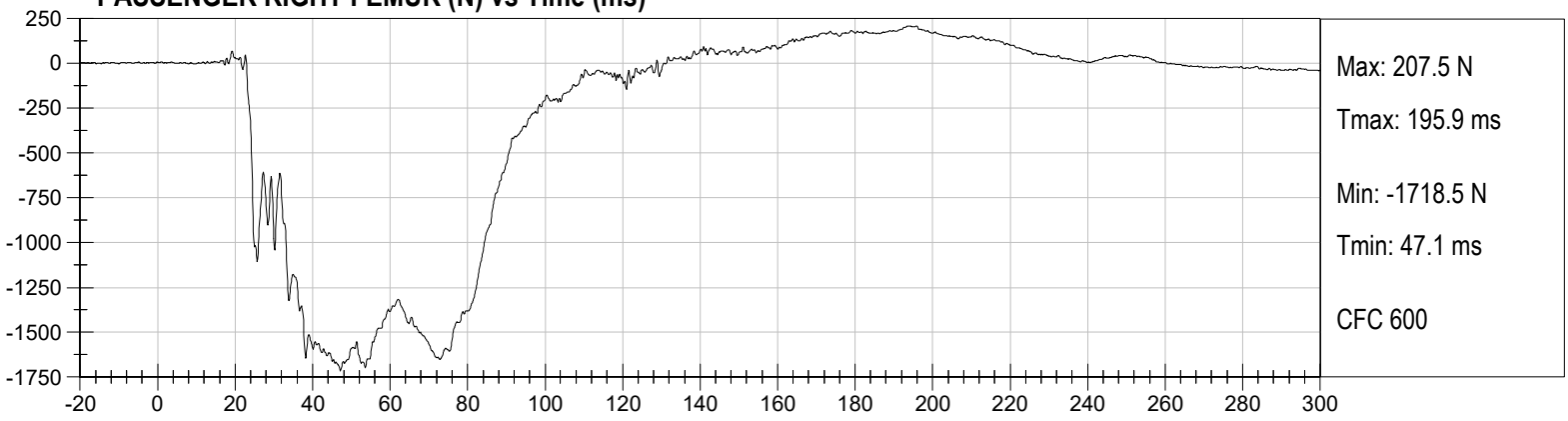
PASSENGER CHEST DISPLACEMENT (mm) vs Time (ms)



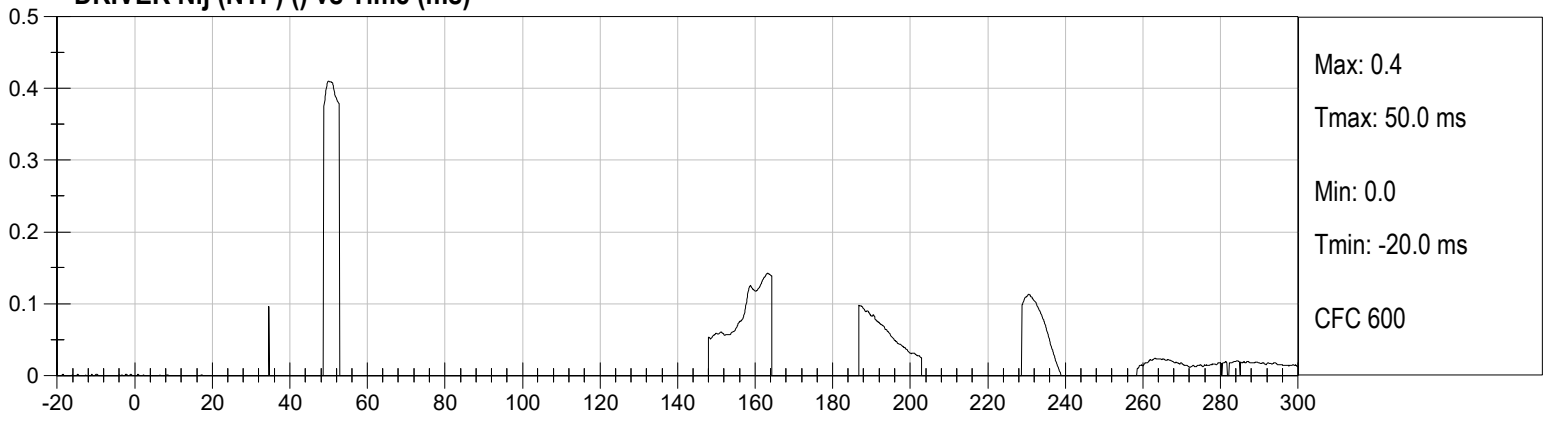
PASSENGER LEFT FEMUR (N) vs Time (ms)



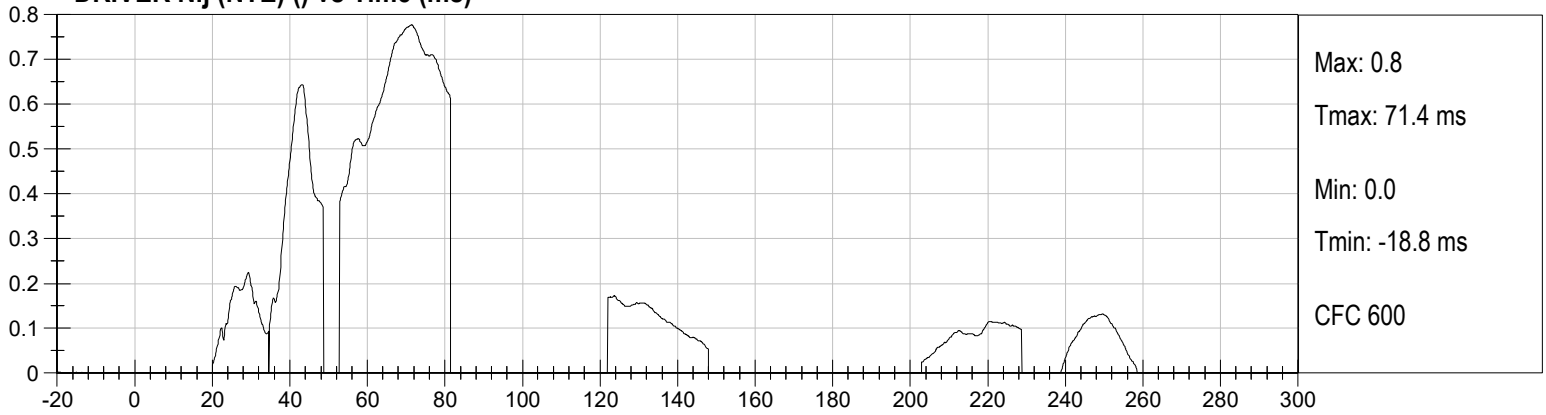
PASSENGER RIGHT FEMUR (N) vs Time (ms)



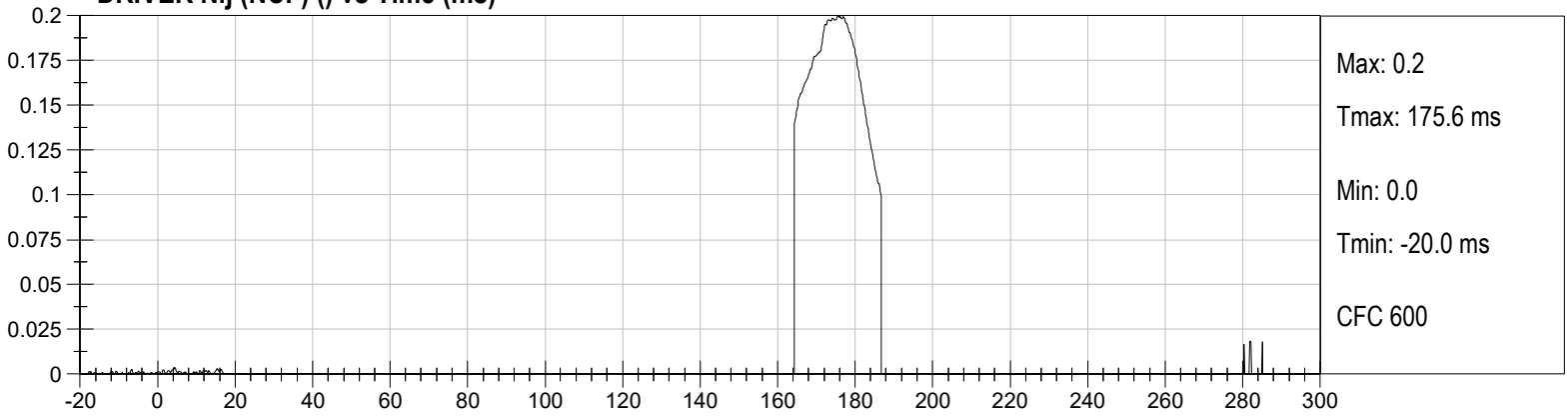
DRIVER Nij (NTF) () vs Time (ms)



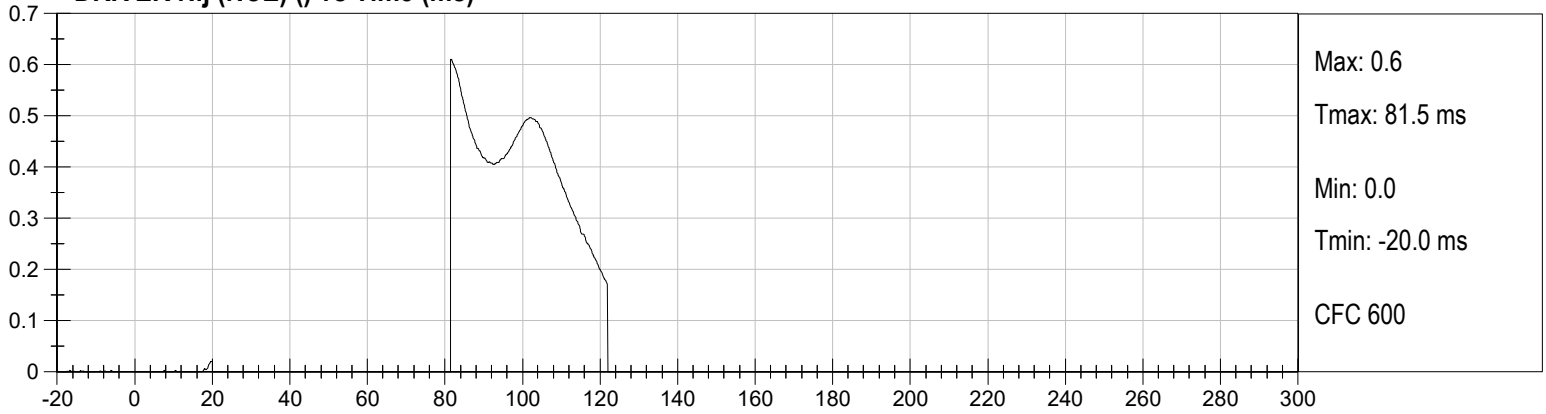
DRIVER Nij (NTE) () vs Time (ms)



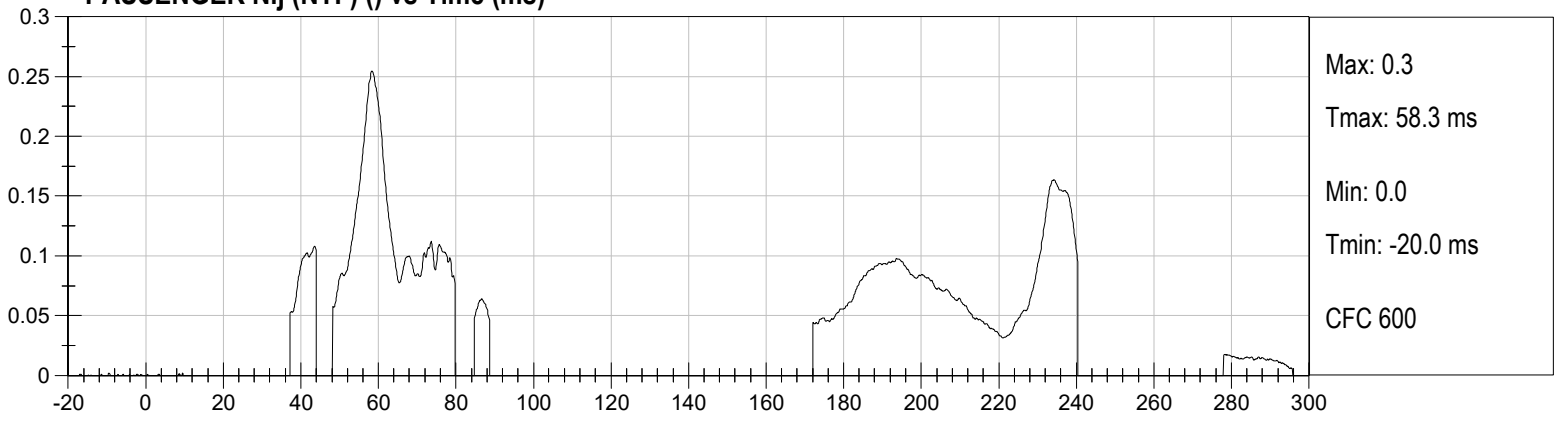
DRIVER Nij (NCF) () vs Time (ms)



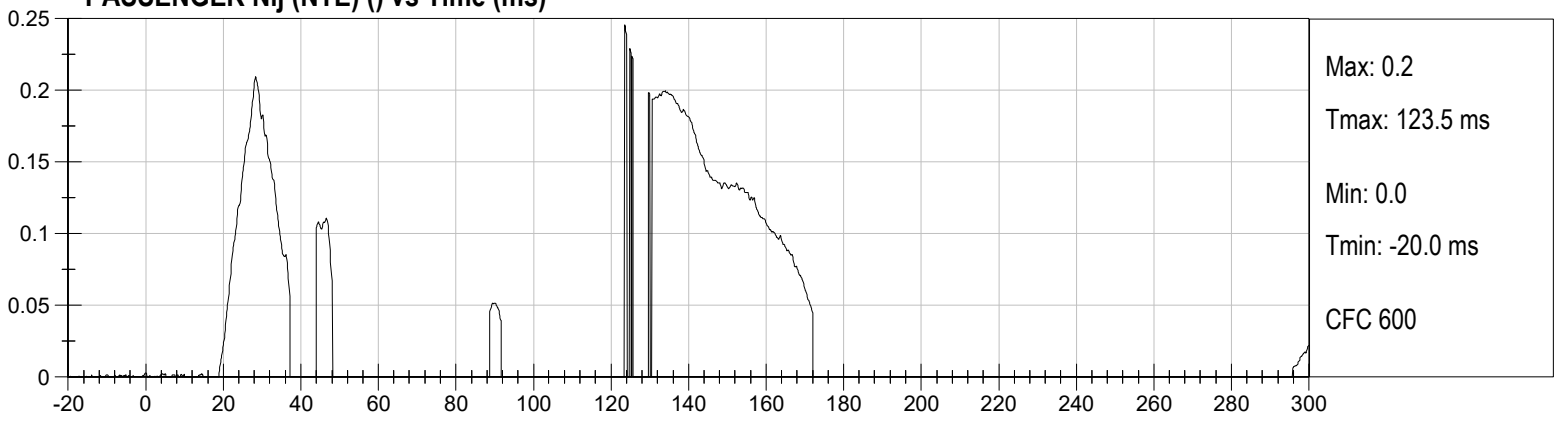
DRIVER Nij (NCE) () vs Time (ms)



PASSENGER Nij (NTF) () vs Time (ms)



PASSENGER Nij (NTE) () vs Time (ms)



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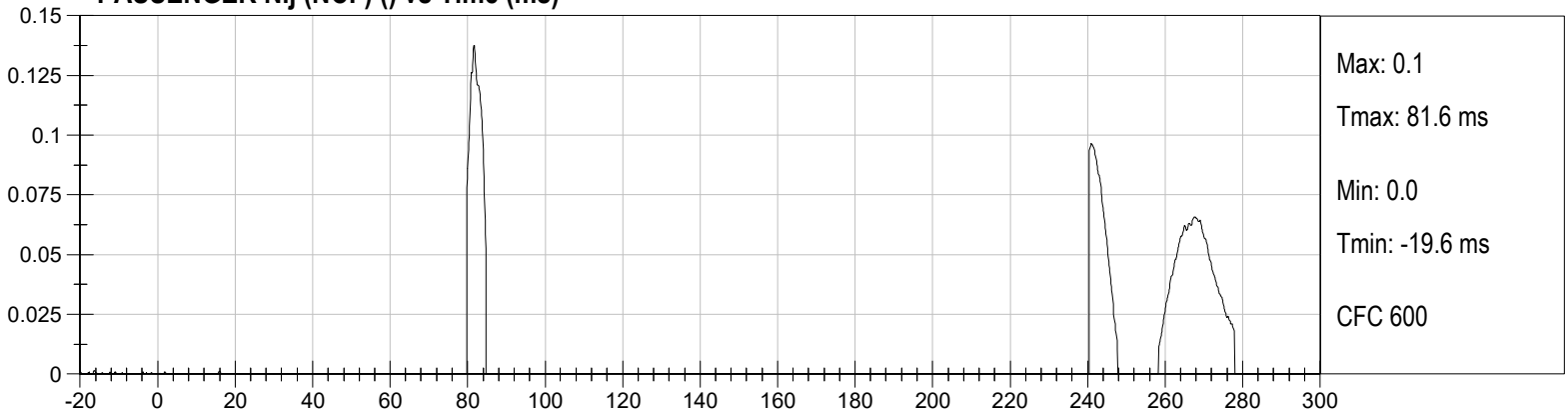
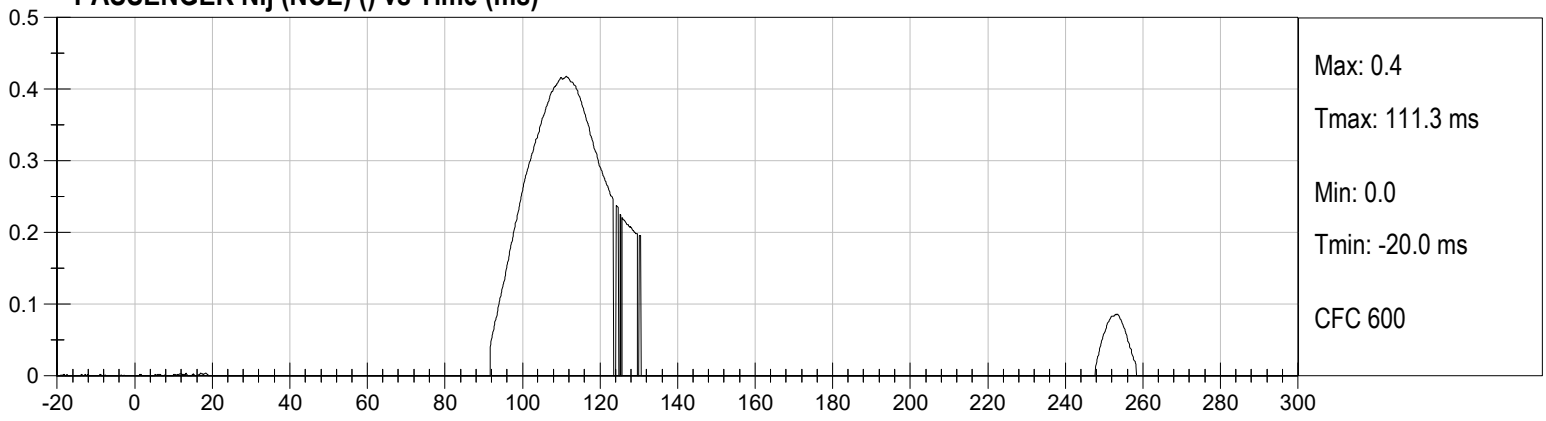
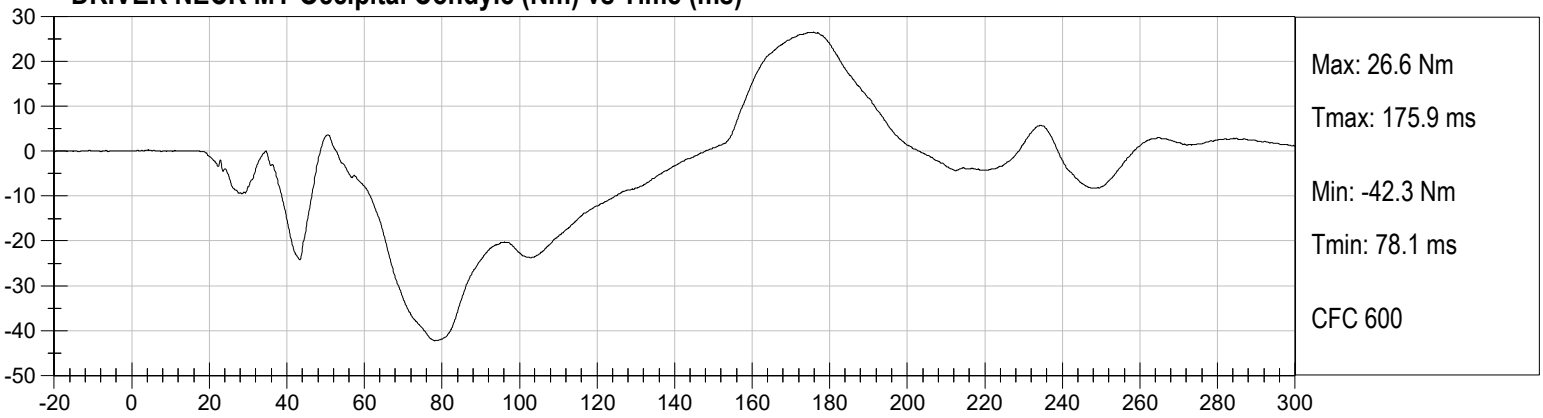


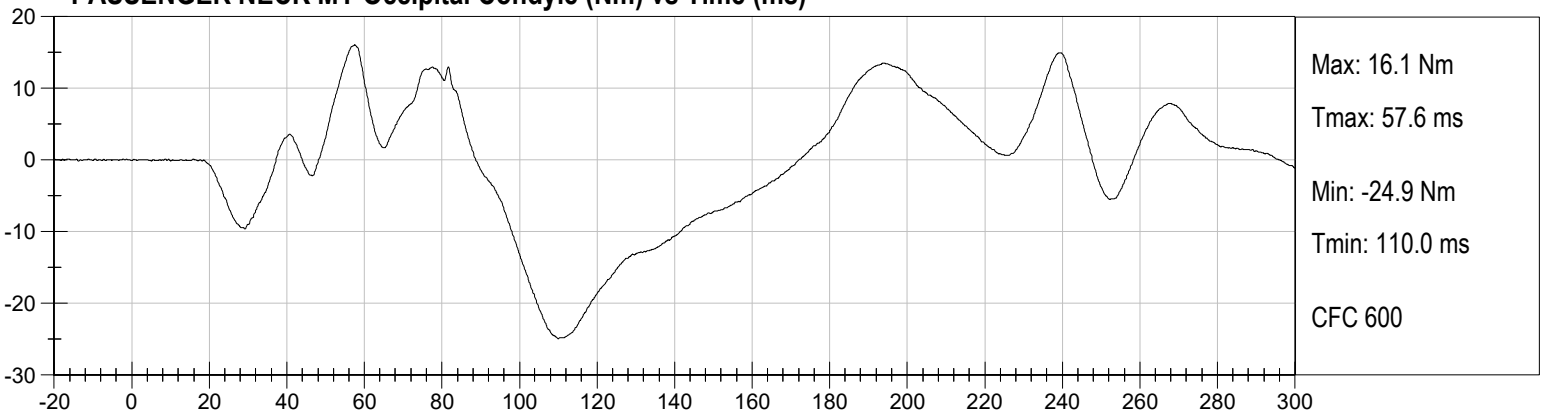
PASSENGER Nij (NCE) () vs Time (ms)



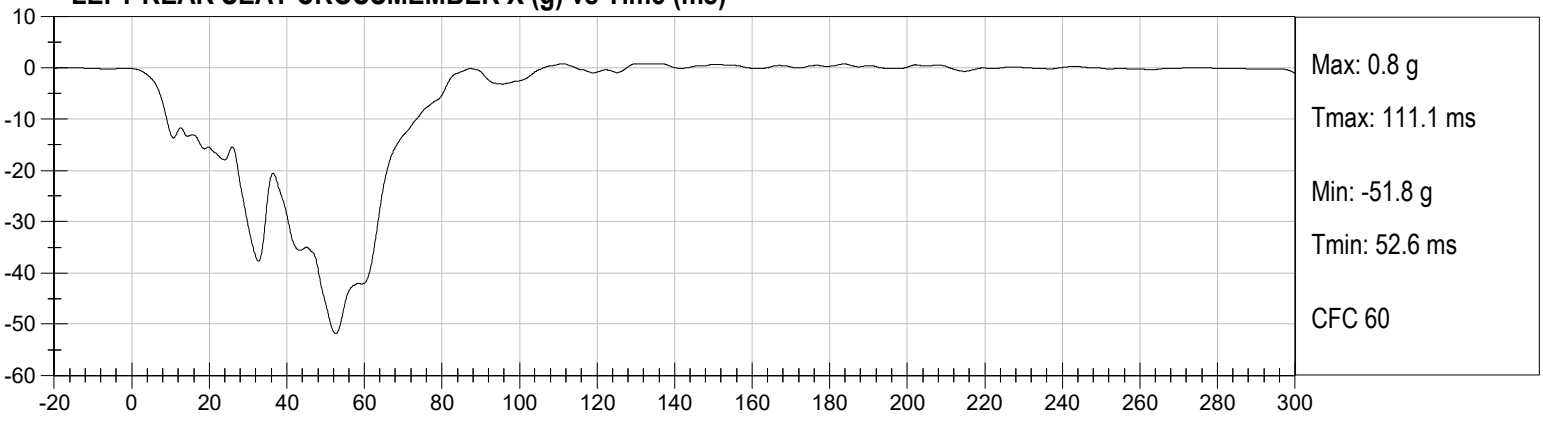
DRIVER NECK MY Occipital Condyle (Nm) vs Time (ms)



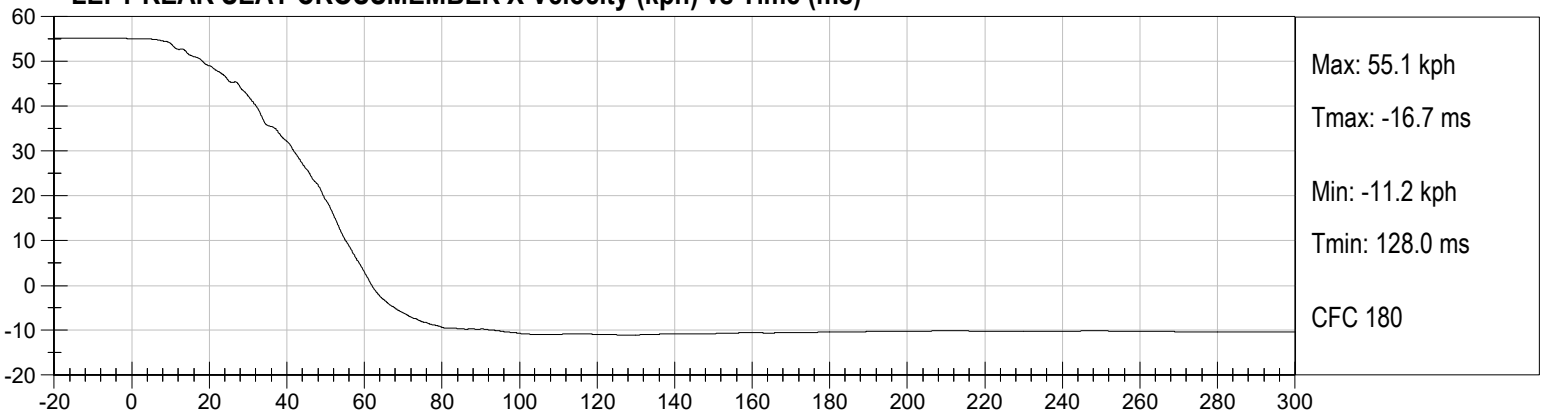
PASSENGER NECK MY Occipital Condyle (Nm) vs Time (ms)



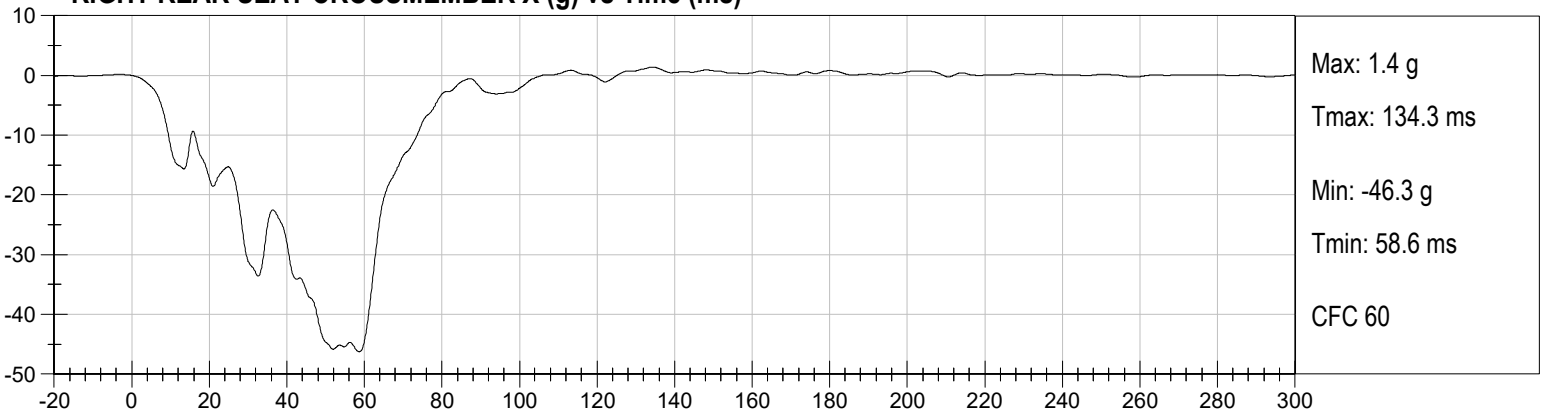
LEFT REAR SEAT CROSSMEMBER X (g) vs Time (ms)



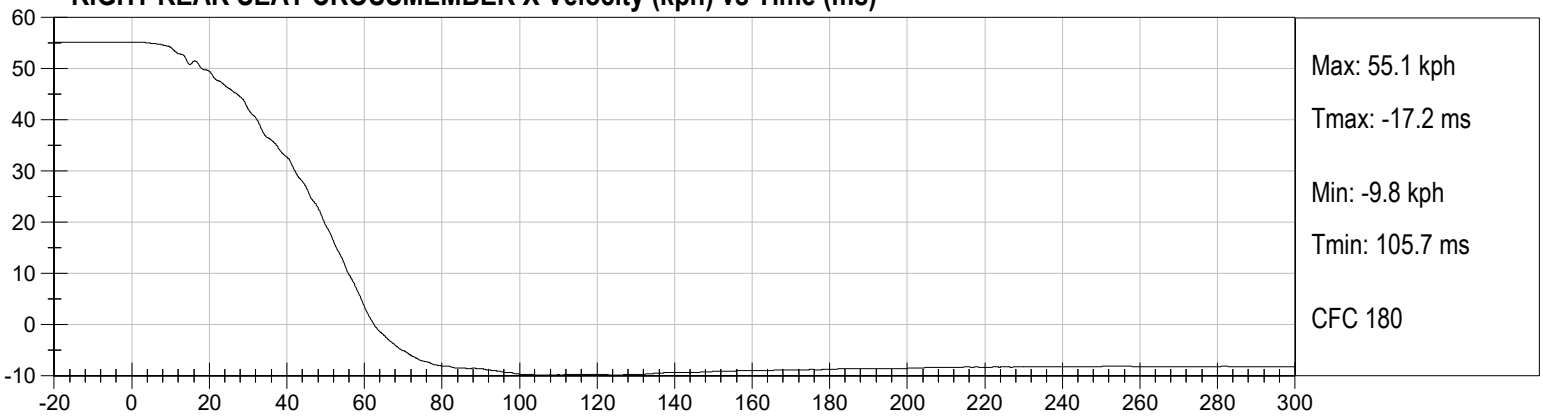
LEFT REAR SEAT CROSSMEMBER X Velocity (kph) vs Time (ms)



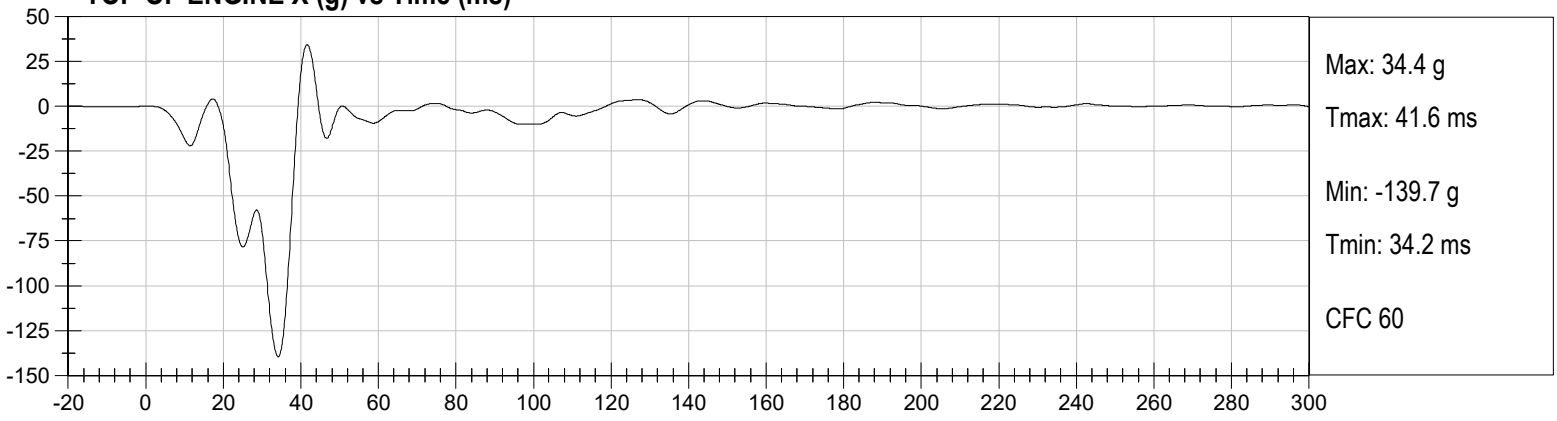
RIGHT REAR SEAT CROSSMEMBER X (g) vs Time (ms)



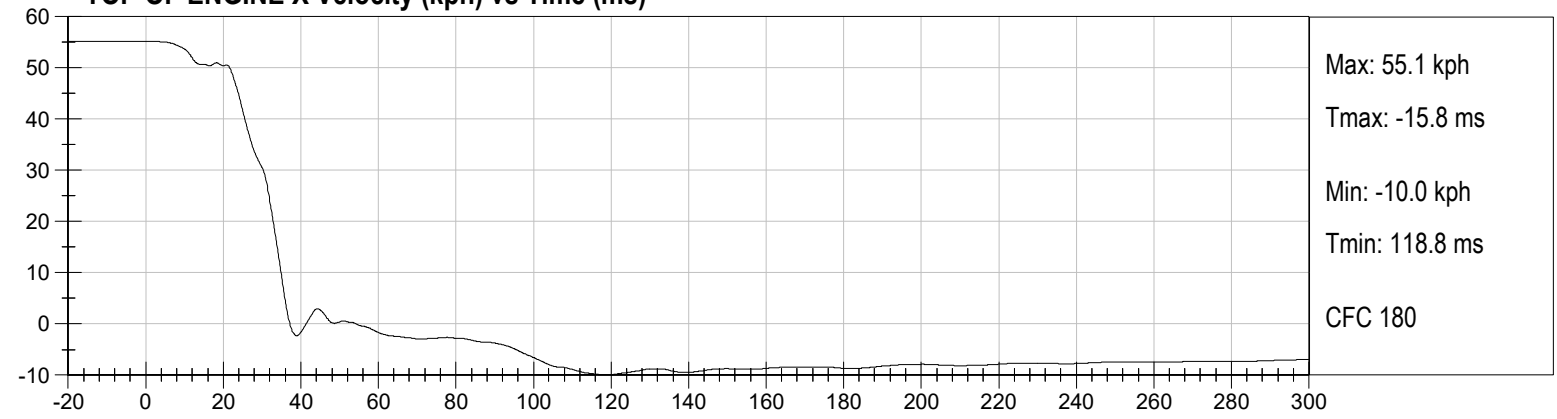
RIGHT REAR SEAT CROSSMEMBER X Velocity (kph) vs Time (ms)



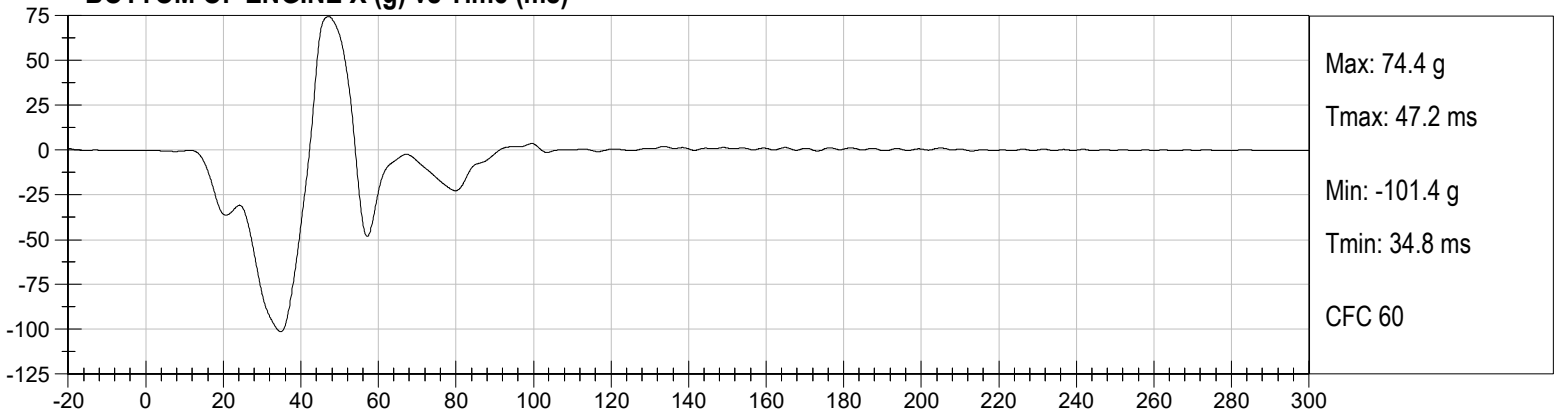
TOP OF ENGINE X (g) vs Time (ms)



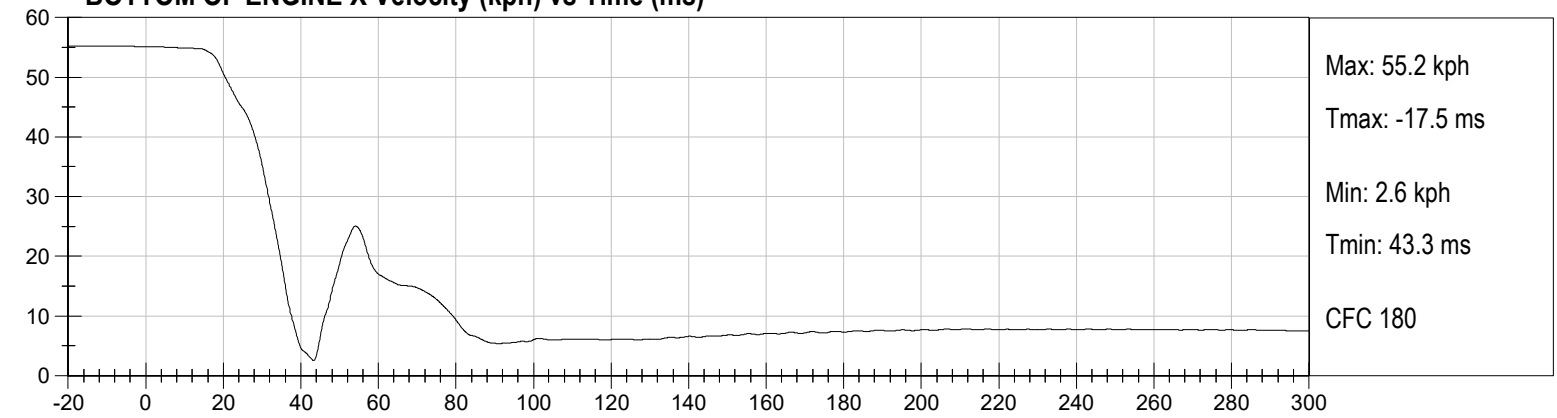
TOP OF ENGINE X Velocity (kph) vs Time (ms)



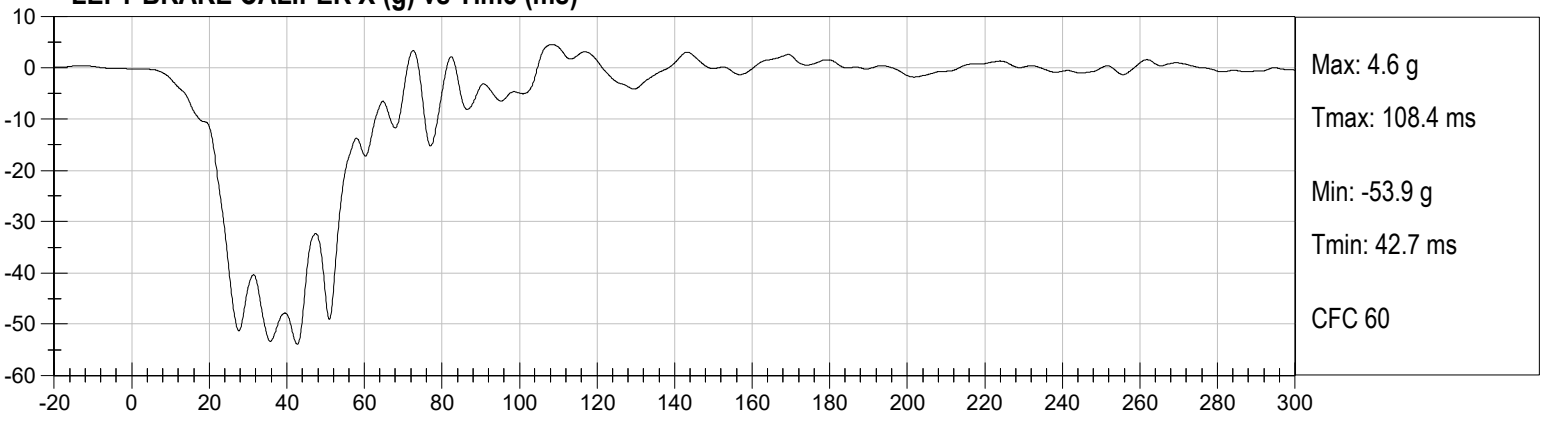
BOTTOM OF ENGINE X (g) vs Time (ms)



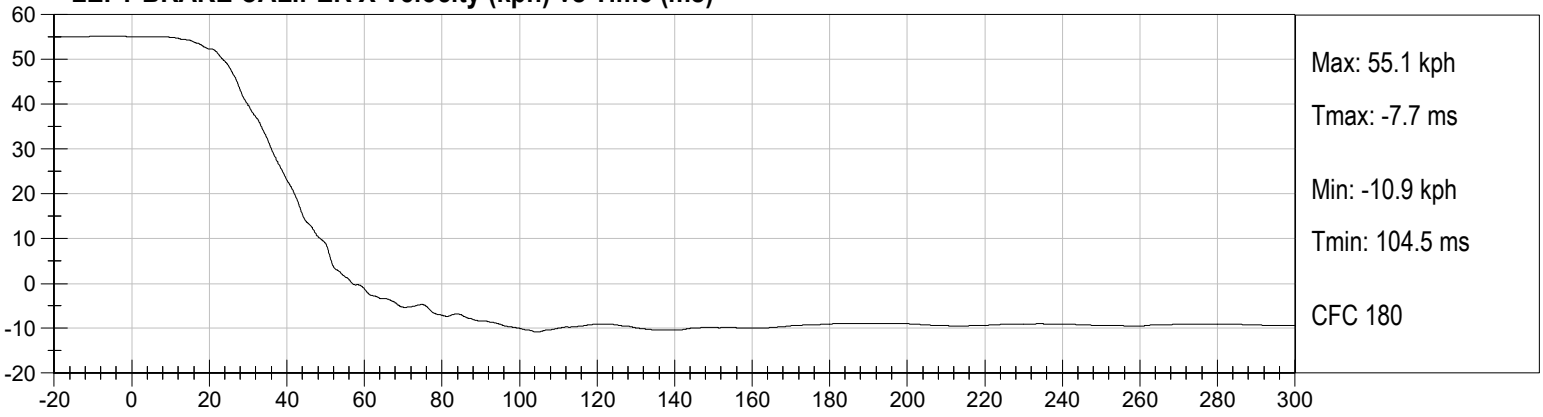
BOTTOM OF ENGINE X Velocity (kph) vs Time (ms)



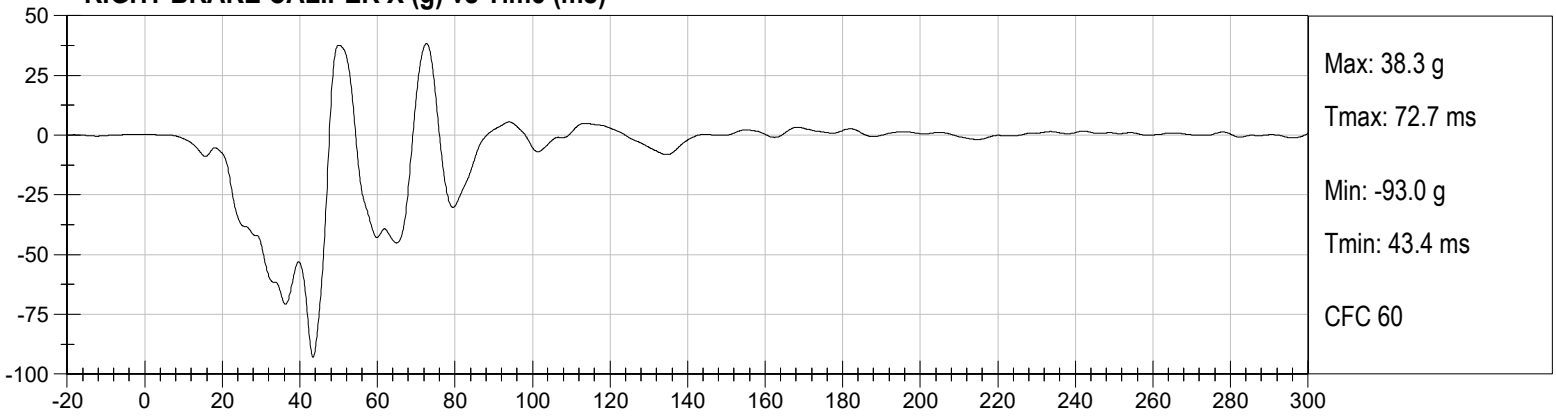
LEFT BRAKE CALIPER X (g) vs Time (ms)



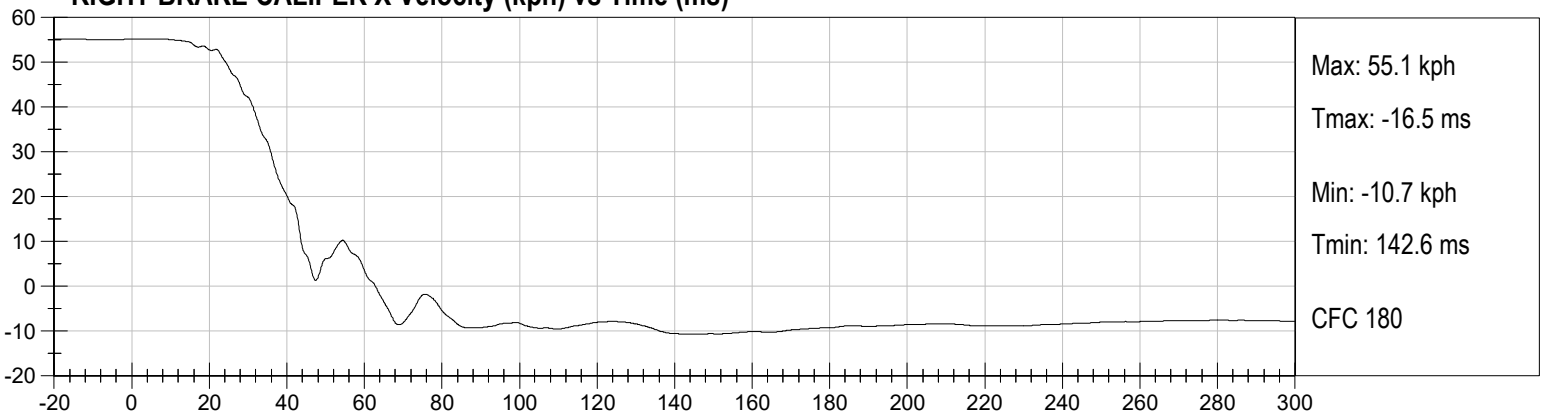
LEFT BRAKE CALIPER X Velocity (kph) vs Time (ms)



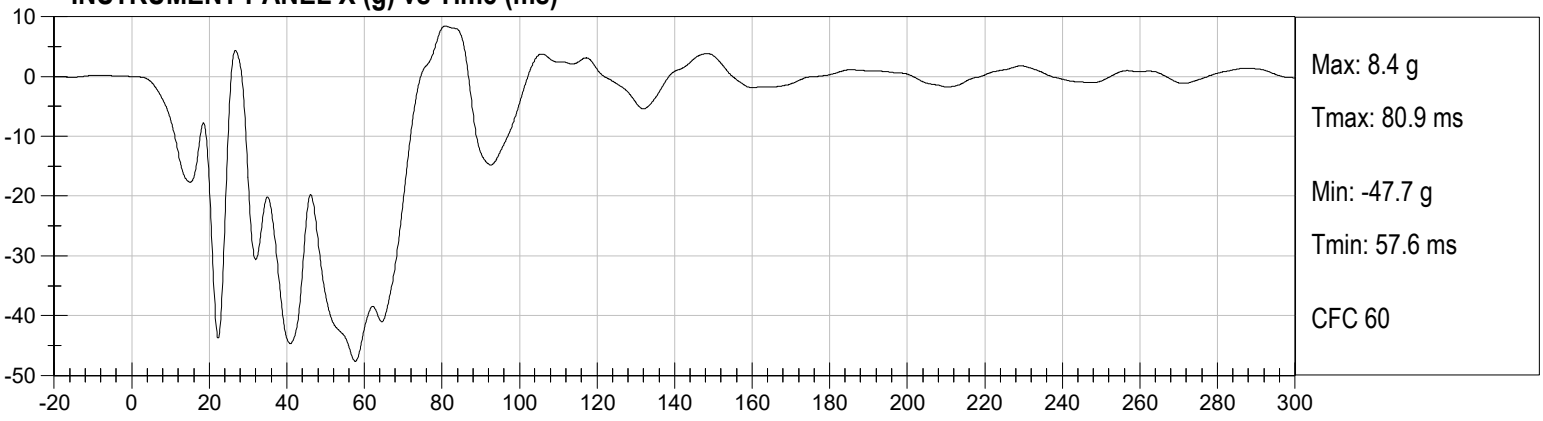
RIGHT BRAKE CALIPER X (g) vs Time (ms)



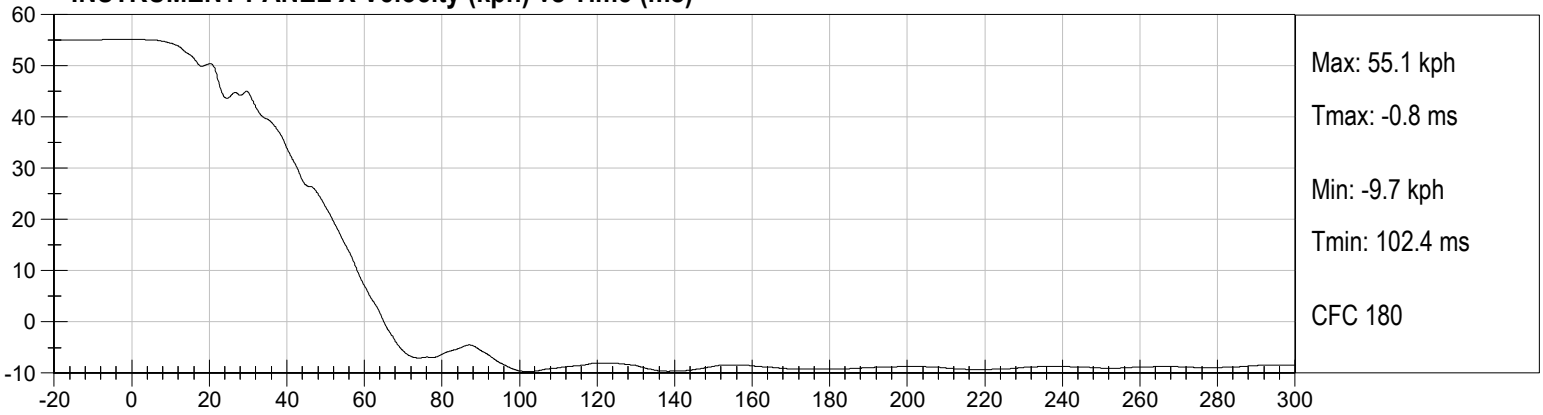
RIGHT BRAKE CALIPER X Velocity (kph) vs Time (ms)



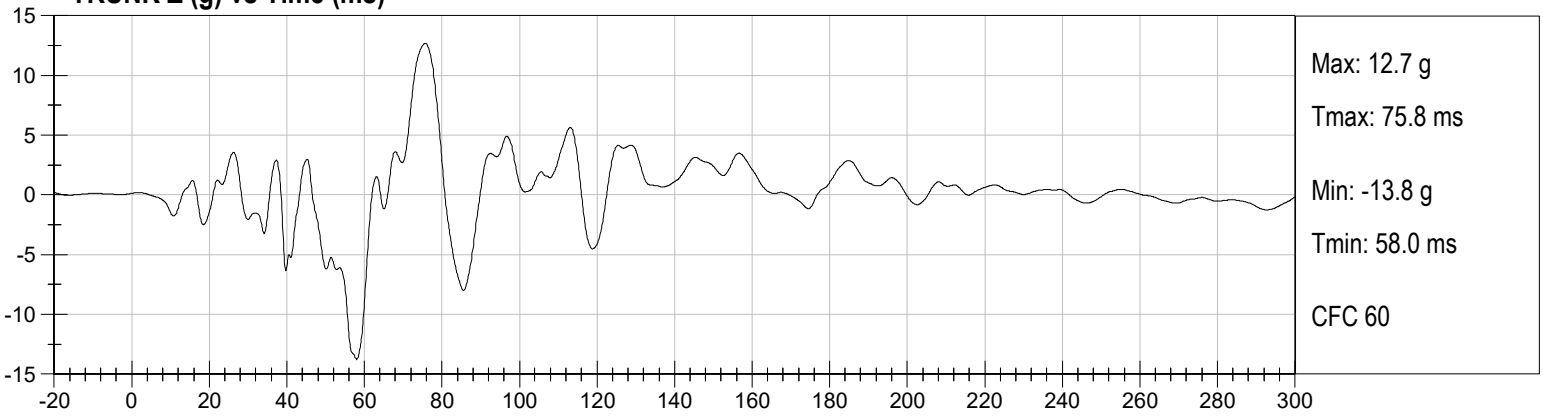
INSTRUMENT PANEL X (g) vs Time (ms)



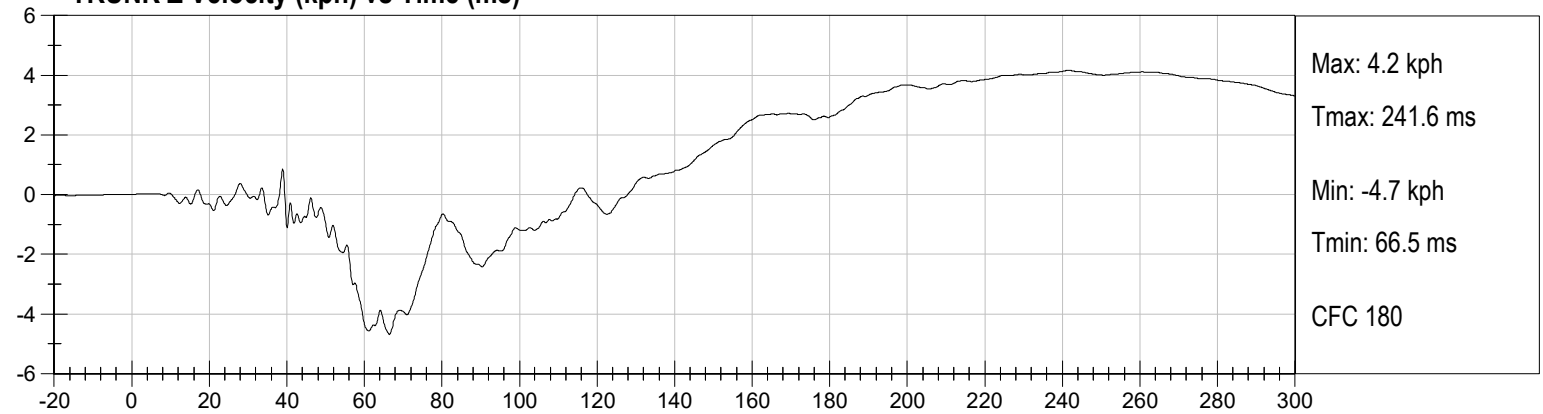
INSTRUMENT PANEL X Velocity (kph) vs Time (ms)



TRUNK Z (g) vs Time (ms)



TRUNK Z Velocity (kph) vs Time (ms)



APPENDIX B

CRASH TEST PHOTOGRAPHS

TABLE OF PHOTOGRAPHS

Photo No. 1. Vehicle Certification Label

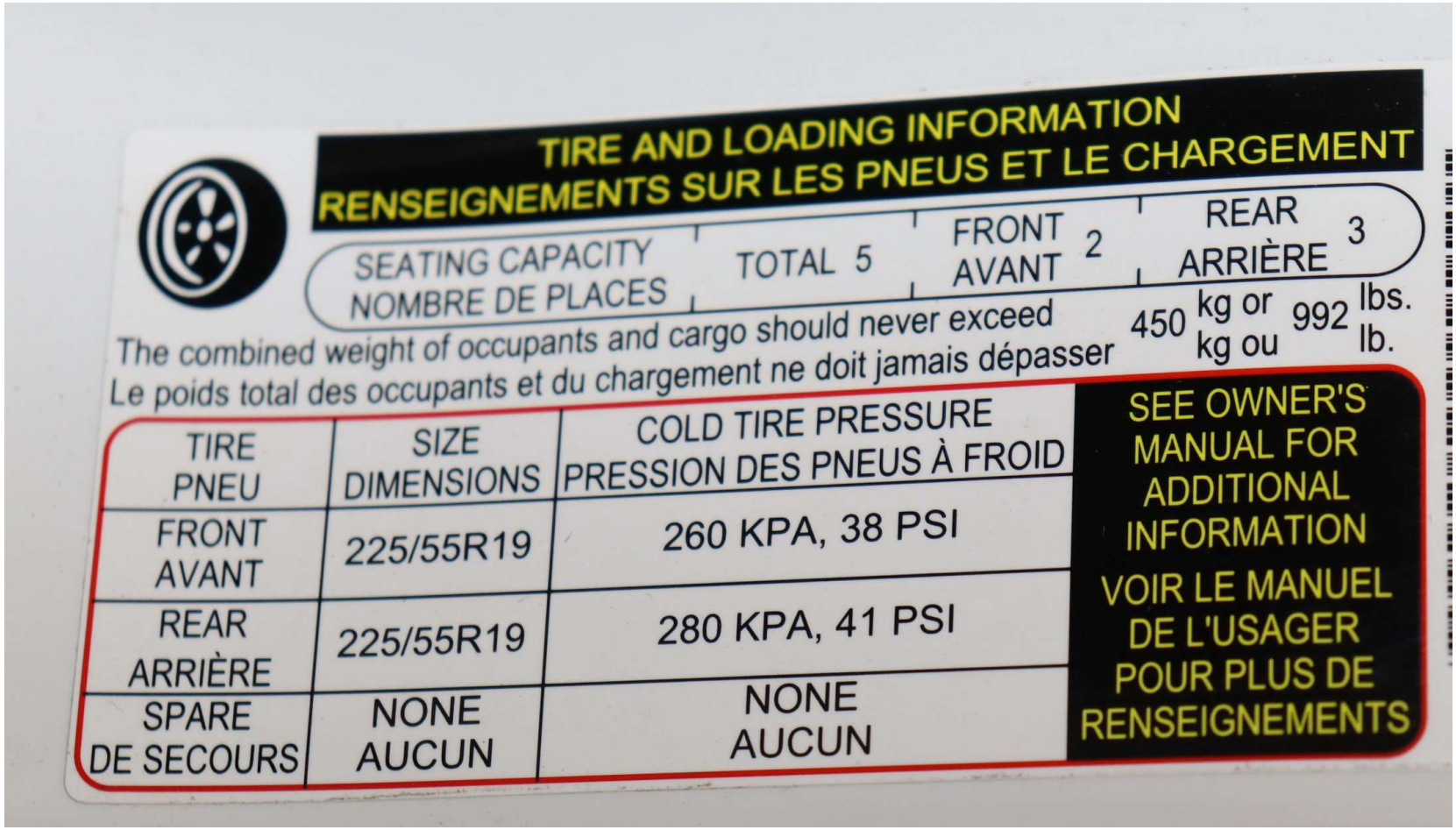


Photo No. 2. Tire Placard

Photo No. 3. Pre-Test Front View of Test Vehicle

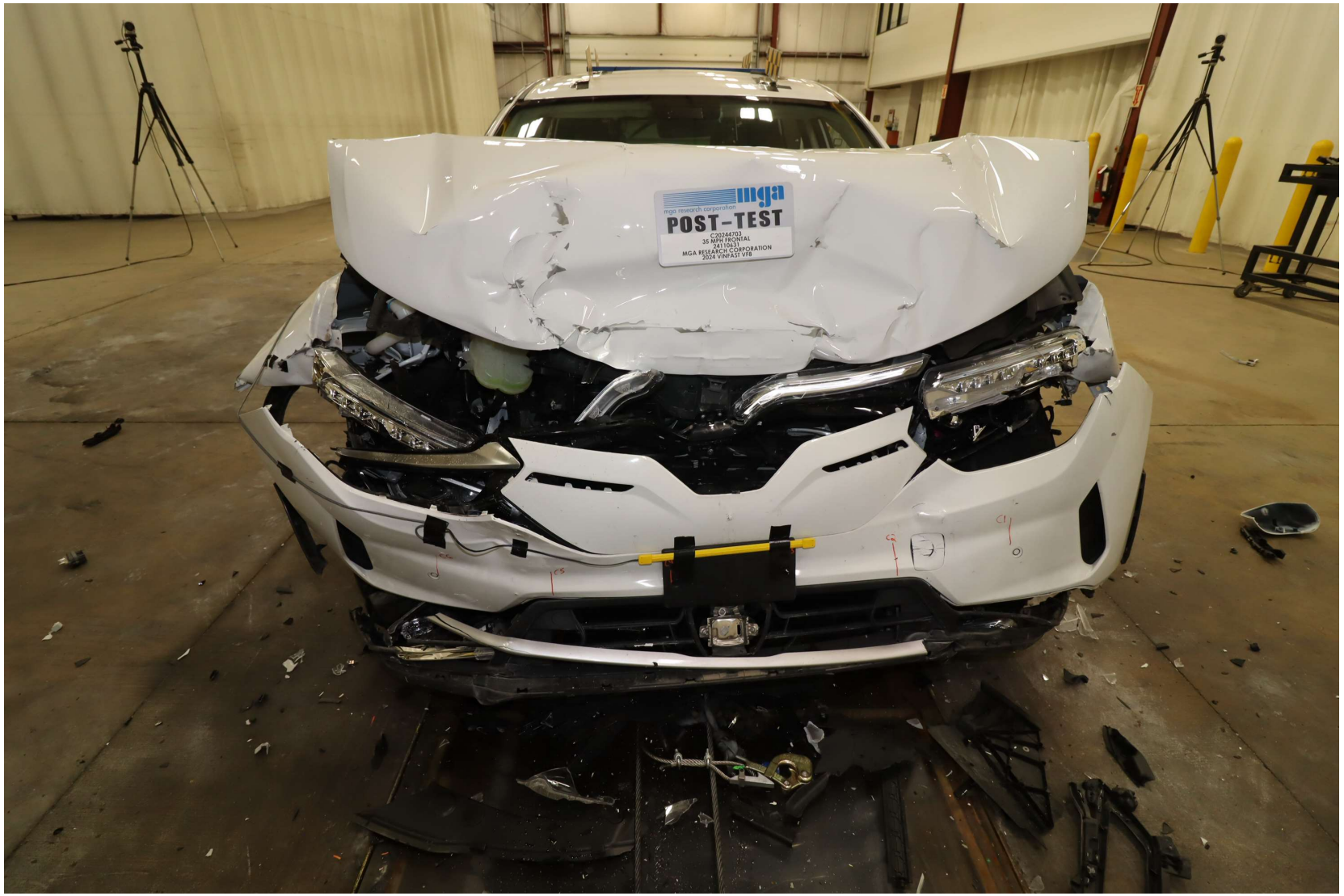


Photo No. 4. Post-Test Front View of Test Vehicle

Photo No. 5. Pre-Test Left Side View of Test Vehicle

Photo No. 6. Post-Test Left Side View of Test Vehicle

Photo No. 7. Pre-Test Right SIde View of Test Vehicle

Photo No. 8. Post-Test Right Side View of Test Vehicle

Photo No. 9. Pre-Test Left Front Three-Quarter View of Test Vehicle

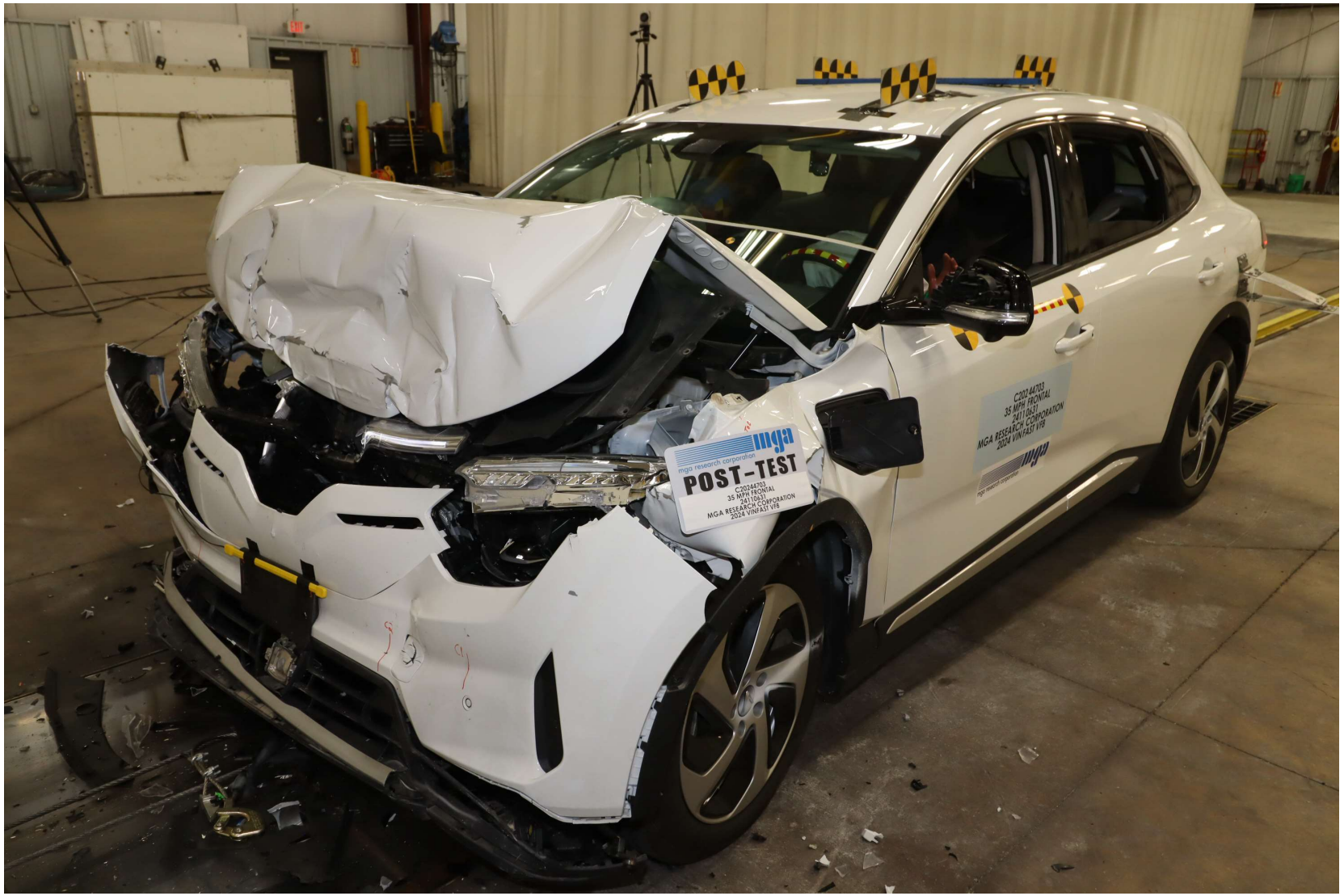


Photo No. 10. Post-Test Left Front Three-Quarter View of Test Vehicle

Photo No. 11. Pre-Test Right Front Three-Quarter View of Test Vehicle

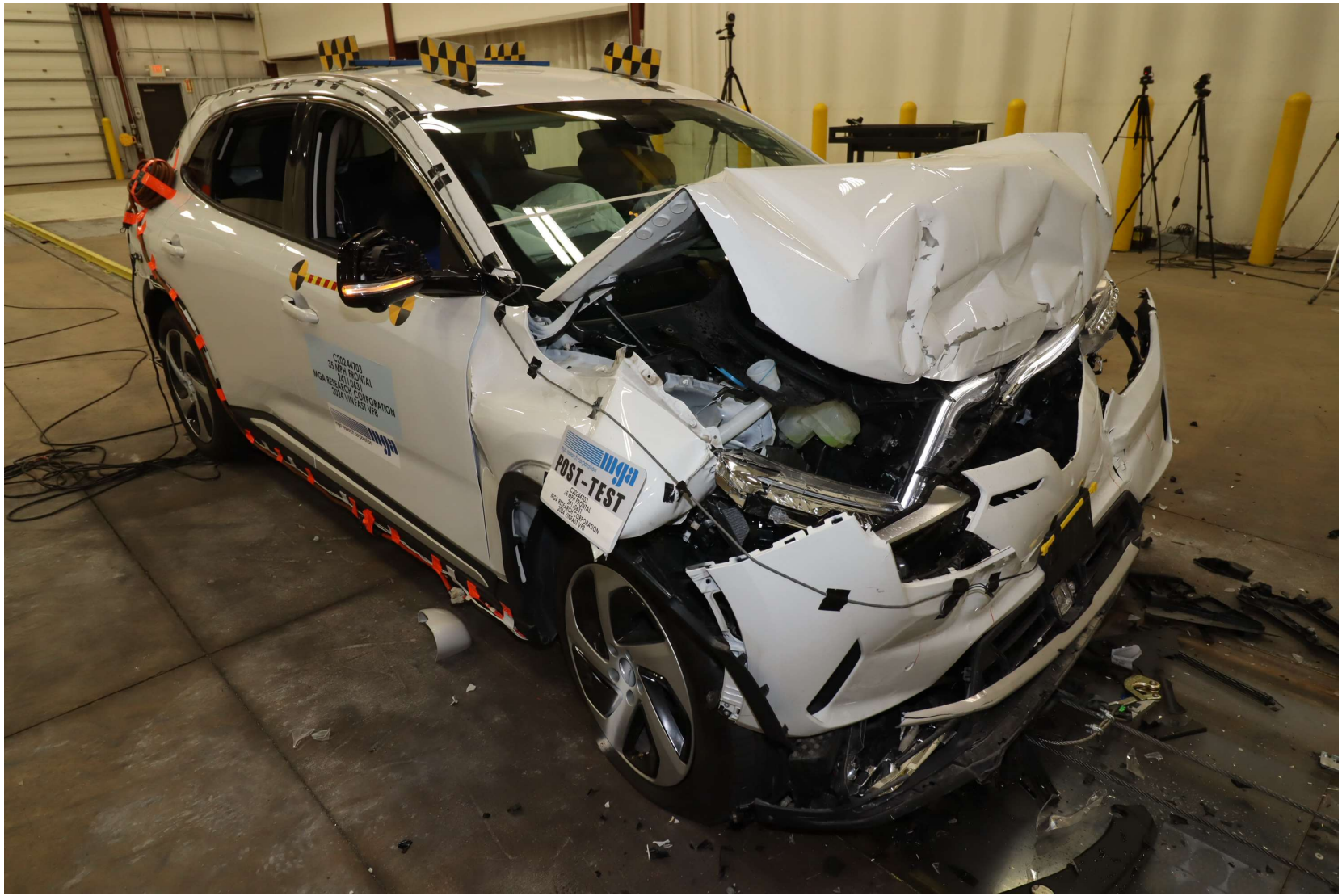


Photo No. 12. Post-Test Right Front Three-Quarter View of Test Vehicle

Photo No. 13. Pre-Test Right Rear Three-Quarter View of Test Vehicle

Photo No. 14. Post-Test Right Rear Three-Quarter View of Test Vehicle

Photo No. 15. Pre-Test Left Rear Three-Quarter View of Test Vehicle

Photo No. 16. Post-Test Left Rear Three-Quarter View of Test Vehicle

Photo No. 17. Pre-Test Rear View of Test Vehicle

Photo No. 18. Post-Test Rear View of Test Vehicle

Photo No. 19. Pre-Test Windshield View

Photo No. 20. Post-Test Windshield View

Photo No. 21. Pre-Test Frunk Compartment View

Photo No. 22. Post-Test Frunk Compartment View

Photo No. 23. Pre-Test Charging Port View

Photo No. 24. Post-Test Charging Port View

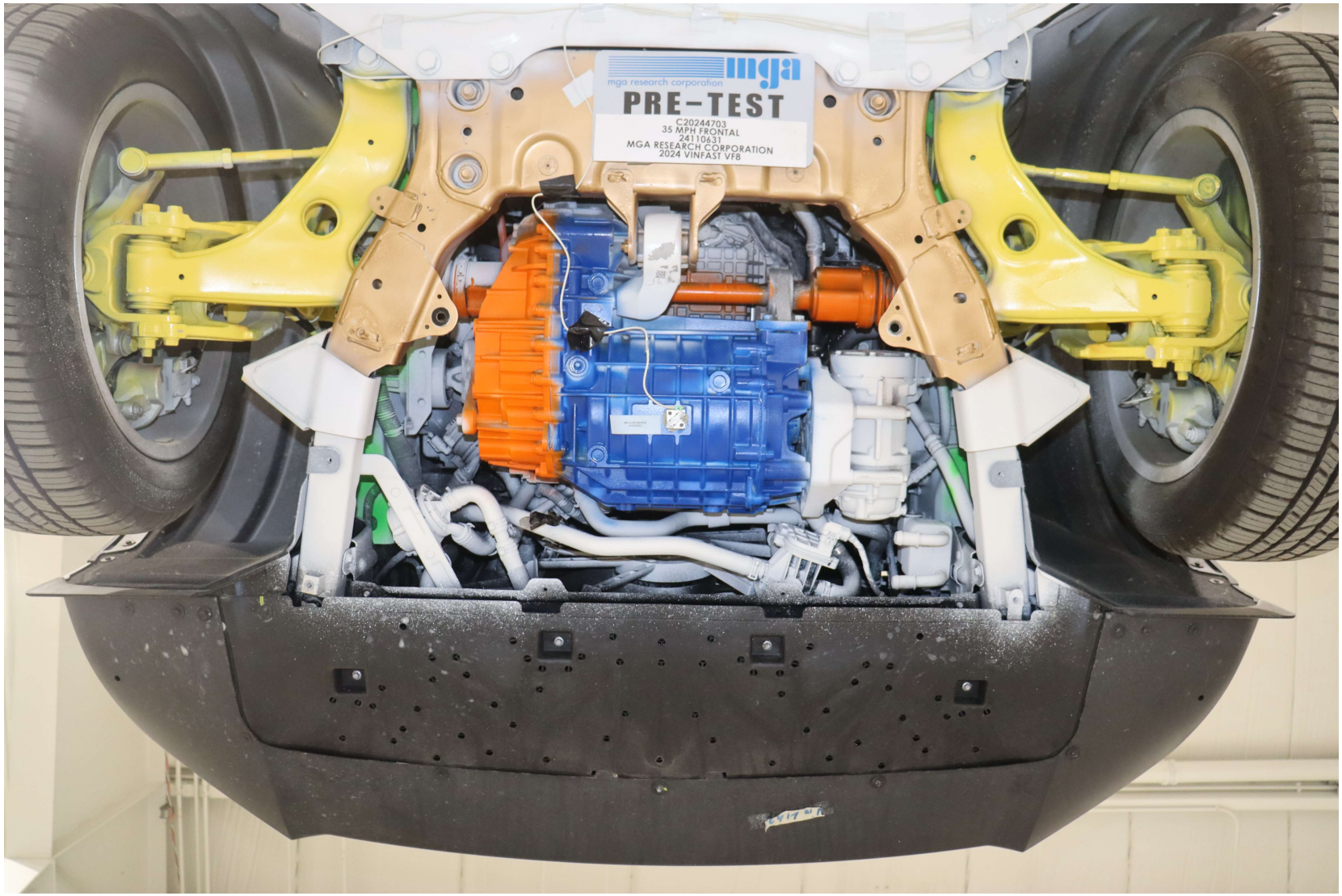


Photo No. 25. Pre-Test Front Underbody View

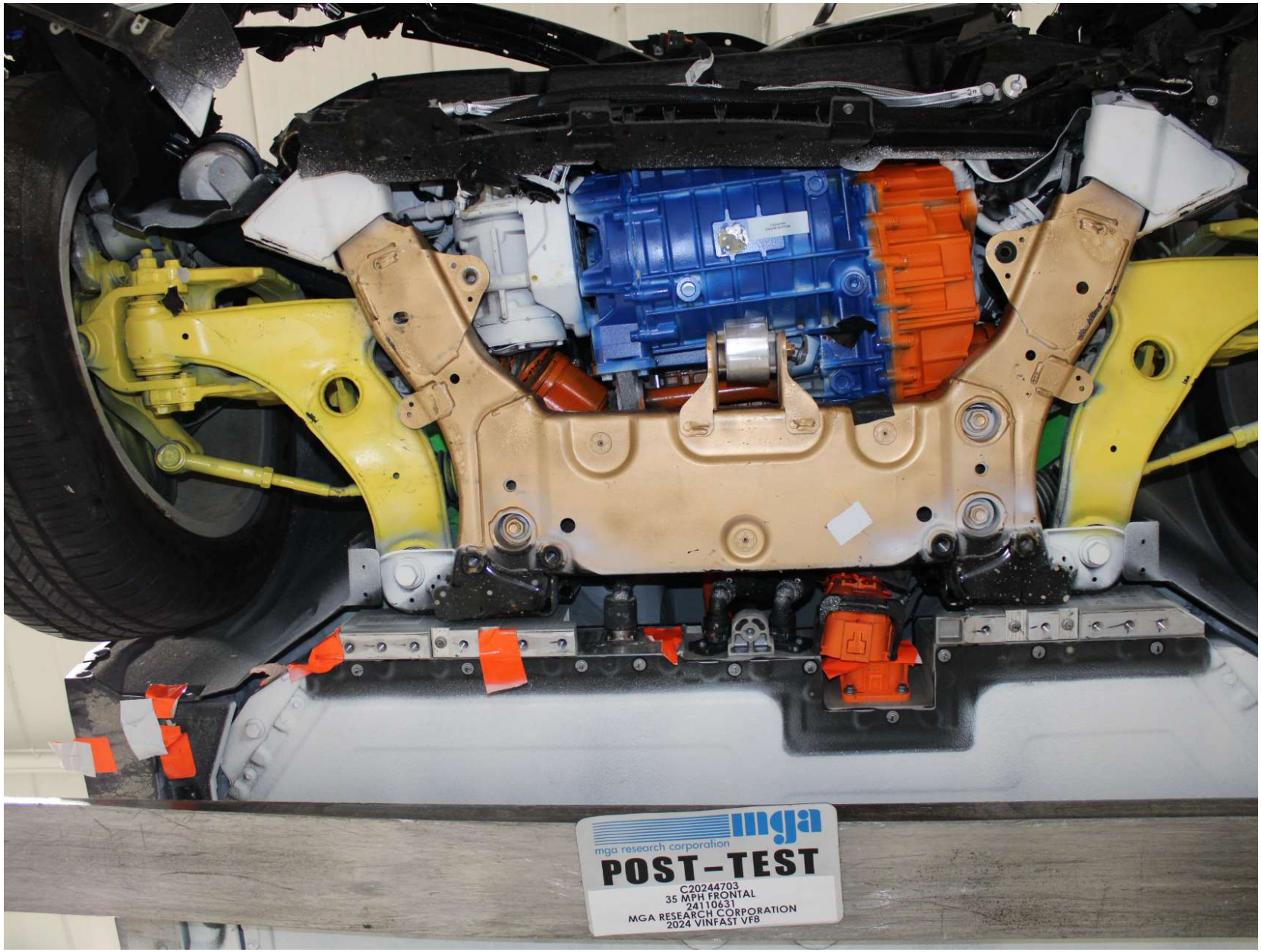


Photo No. 26. Post-Test Front Underbody View

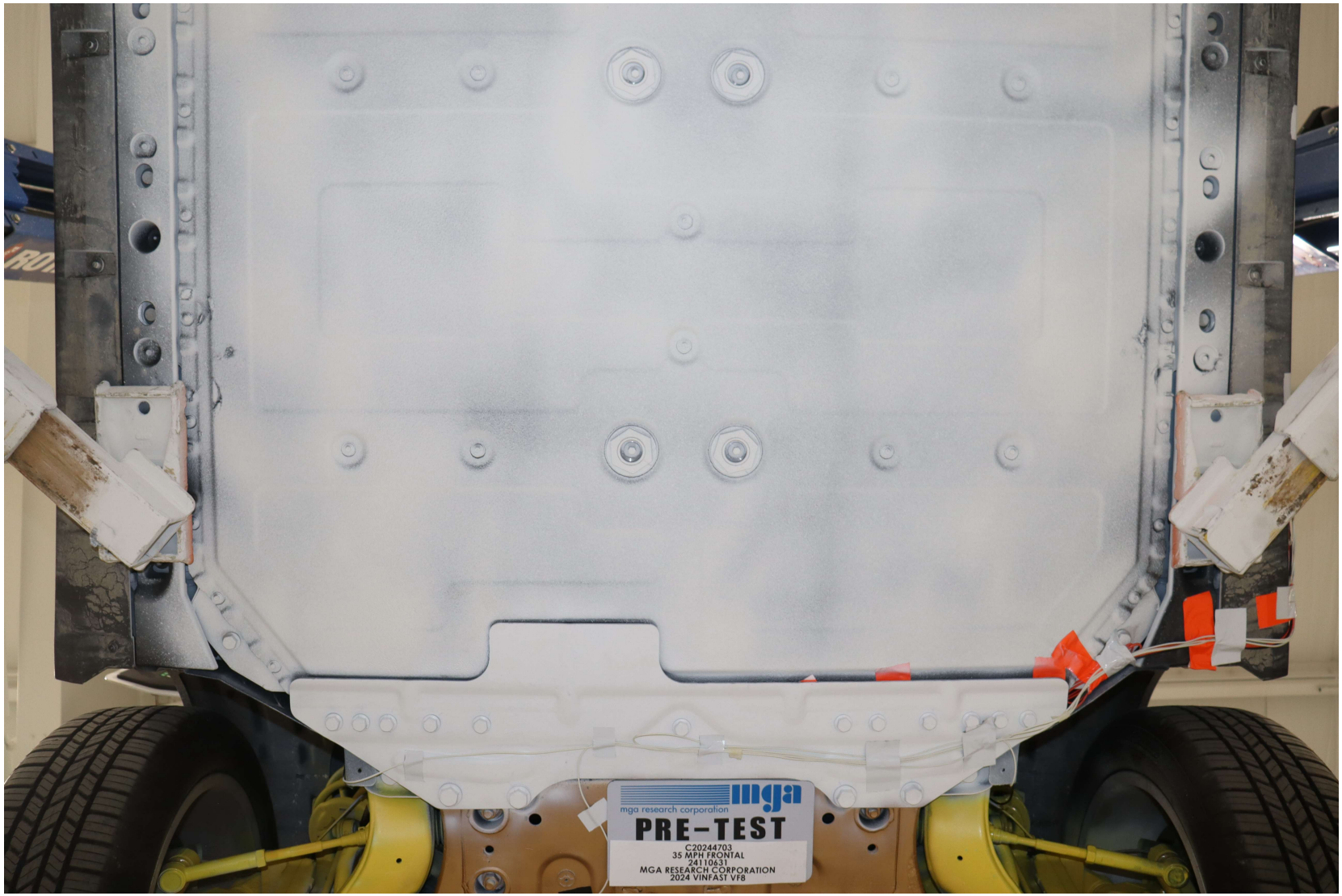


Photo No. 27. Pre-Test Mid Underbody View

Photo No. 28. Post-Test Mid Underbody View

Photo No. 29. Pre-Test Mid Rear Underbody View

Photo No. 30. Post-Test Mid Rear Underbody View

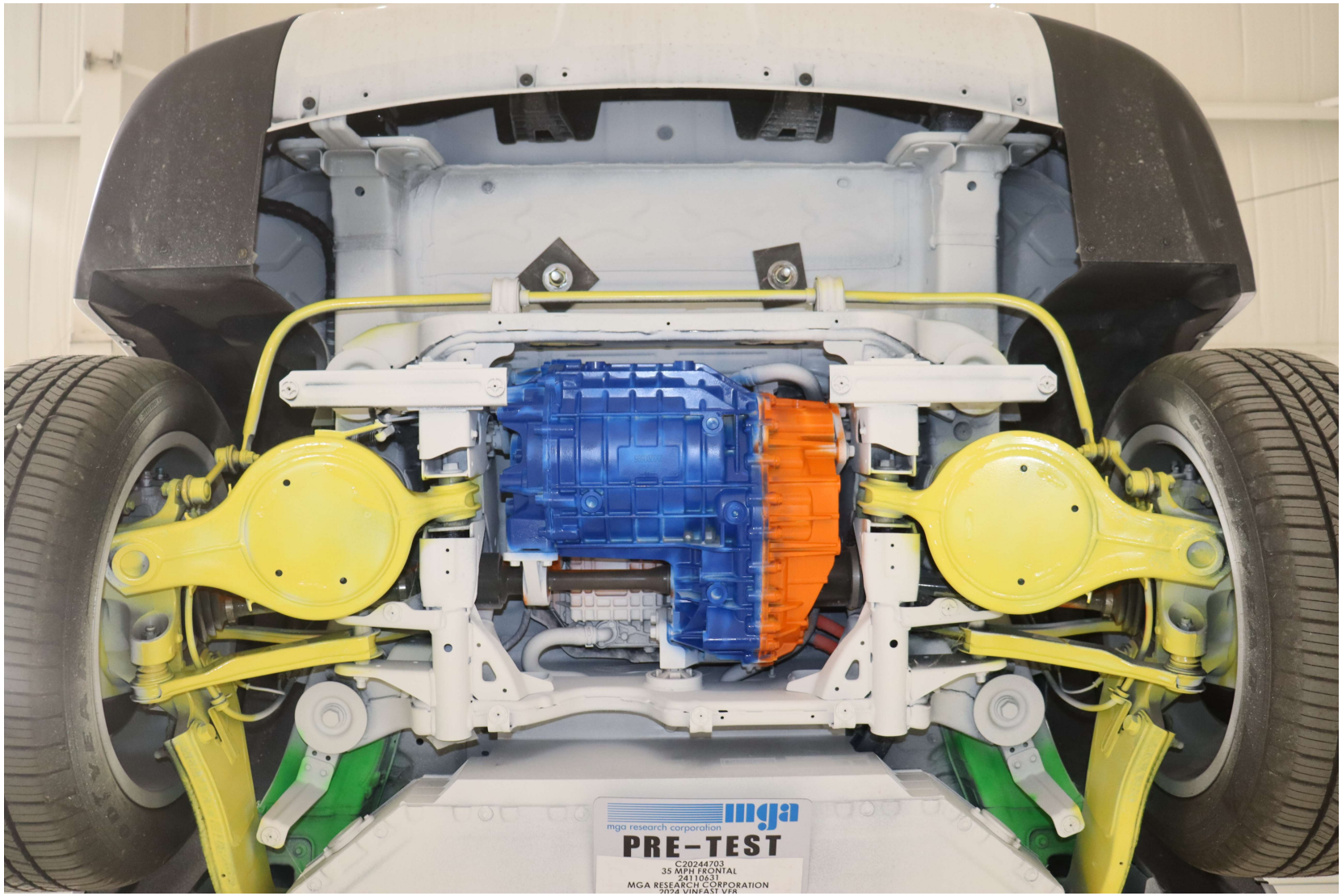


Photo No. 31. Pre-Test Rear Underbody View

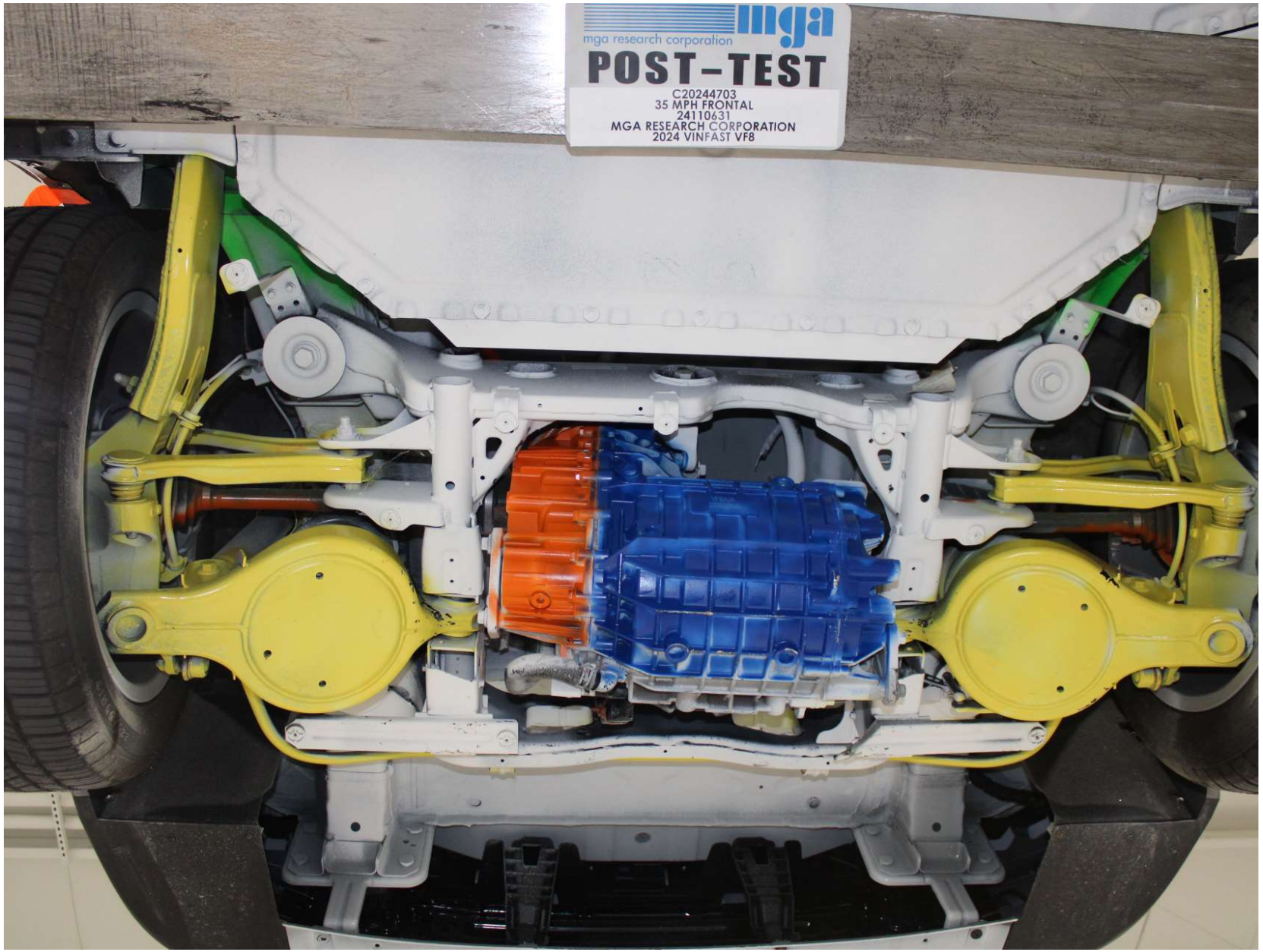


Photo No. 32. Post-Test Rear Underbody View

Photo No. 33. Pre-Test Driver Dummy Front View (head position)

Photo No. 34. Post-Test Driver Dummy Front View (head position)

Photo No. 35. Pre-Test Driver Dummy Position Left Side View

Photo No. 36. Post-Test Driver Dummy Position Left Side View

Photo No. 37. Pre-Test Driver Dummy Position Left Side View (door open)

Photo No. 38. Post-Test Driver Dummy Position Left Side View (door open)

Photo No. 39. Pre-Test Driver Dummy Seat Position

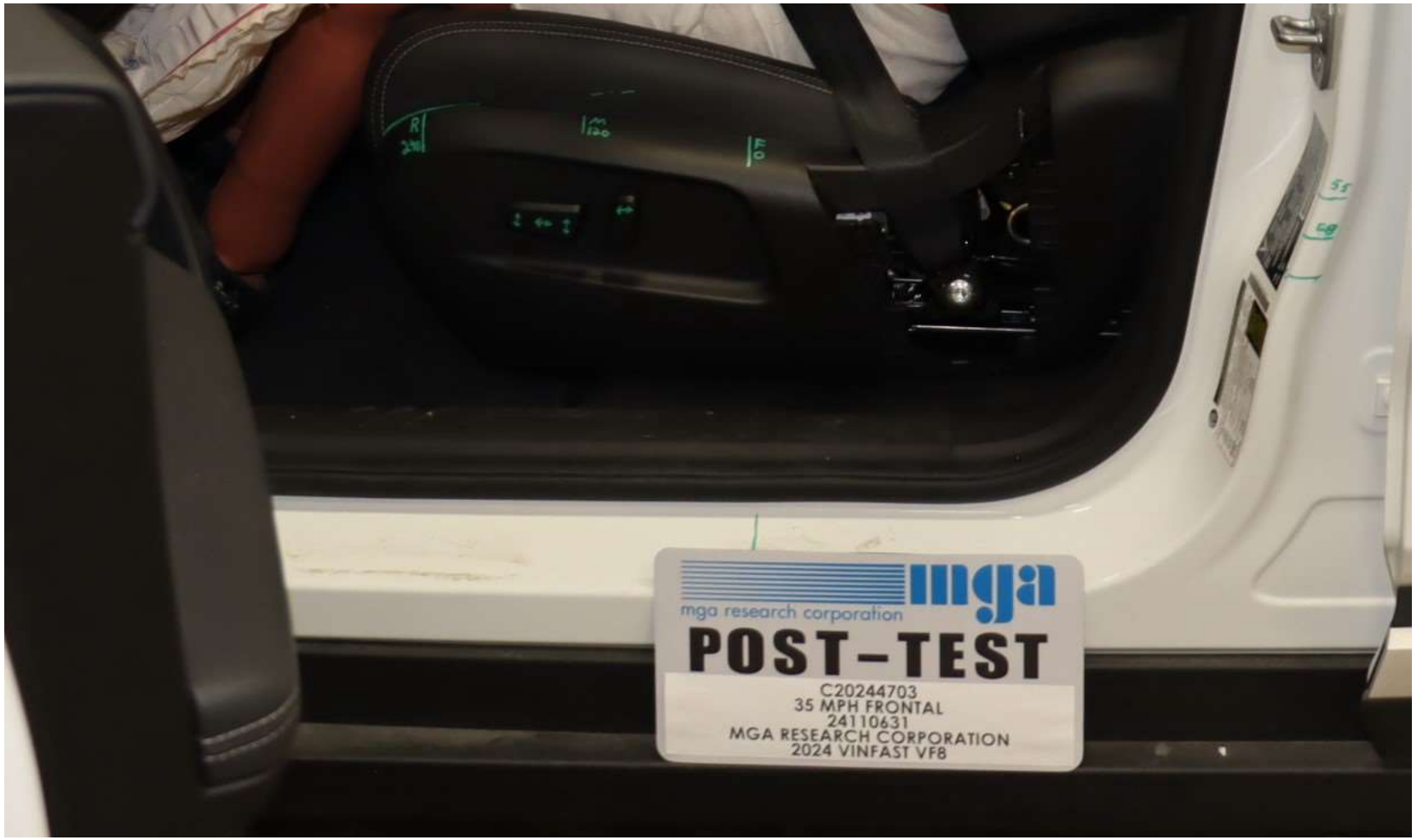


Photo No. 40. Post-Test Driver Dummy Seat Position

Photo No. 41. Pre-Test Driver Dummy Feet Position

Photo No. 42. Post-Test Driver Dummy Feet Position

Photo No. 43. Pre-Test Drive Side Knee Bolster View

Photo No. 44. Post-Test Driver Side Knee Bolster View

Photo No. 45. Post-Test Driver Dummy Airbag Contact

Photo No. 46. Post-Test Driver Dummy Knee Contact

Photo No. 47. Post-Test Driver Dummy Head Contact (headrest)

Photo No. 48. Pre-Test Passenger Dummy Front View (head position)

Photo No. 49. Post-Test Passenger Dummy Front View (head position)

Photo No. 50. Pre-Test Passenger Dummy Position Right Side View

Photo No. 51. Post-Test Passenger Dummy Position Right Side View

Photo No. 52. Pre-Test Passenger Dummy Position Right Side View (door open)

Photo No. 53. Post-Test Passenger Dummy Position Right Side View (door open)

Photo No. 54. Pre-Test Passenger Dummy Seat Position

Photo No. 55. Post-Test Passenger Dummy Seat Position

Photo No. 56. Pre-Test Passenger Dummy Feet Position

Photo No. 57. Post-Test Passenger Dummy Feet Position

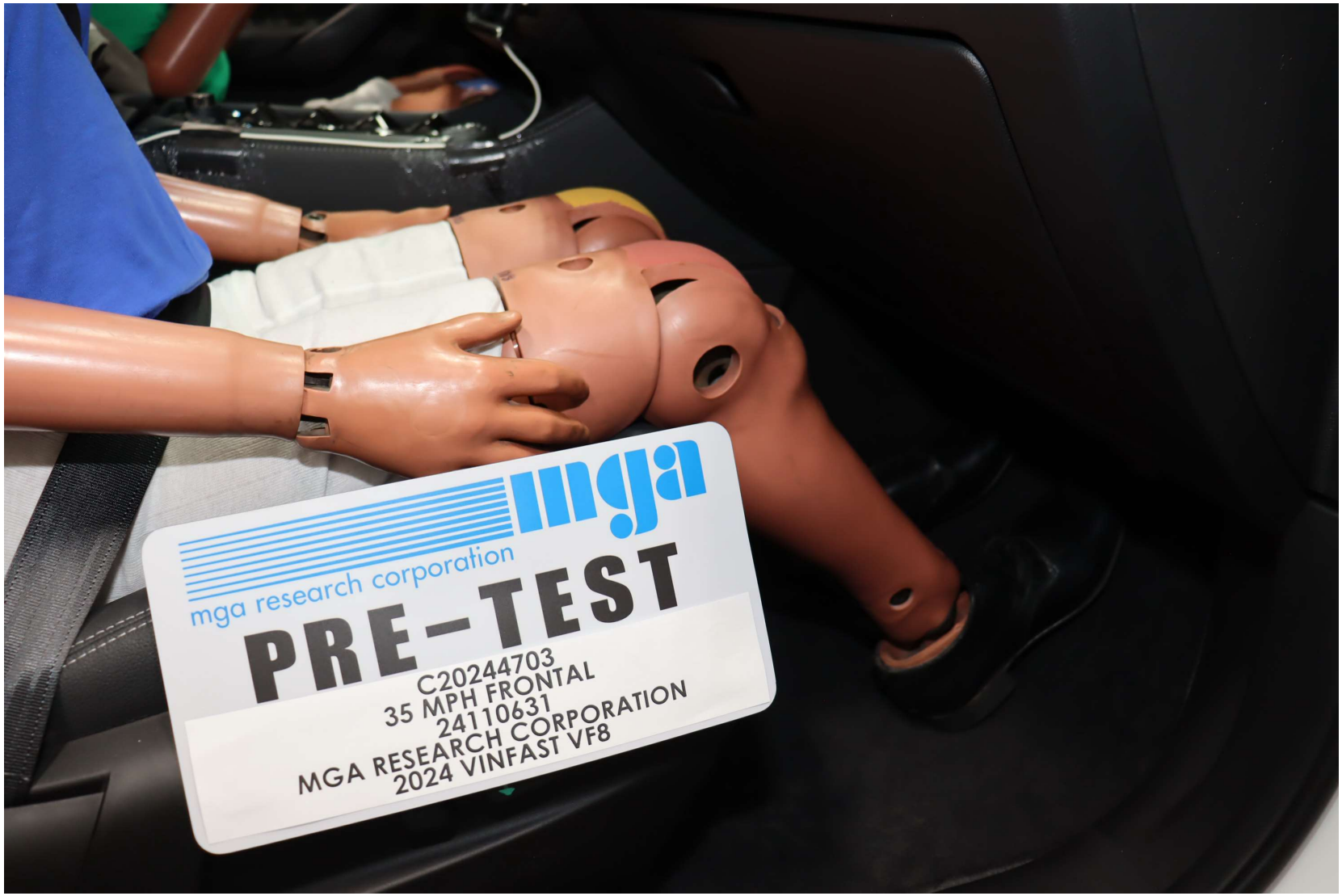


Photo No. 58. Pre-Test Passenger Side Knee Bolster View

Photo No. 59. Post-Test Passenger Side Knee Bolster View

Photo No. 60. Post-Test Passenger Dummy Airbag Contact

Photo No. 61. Post-Test Passenger Dummy Knee Contact

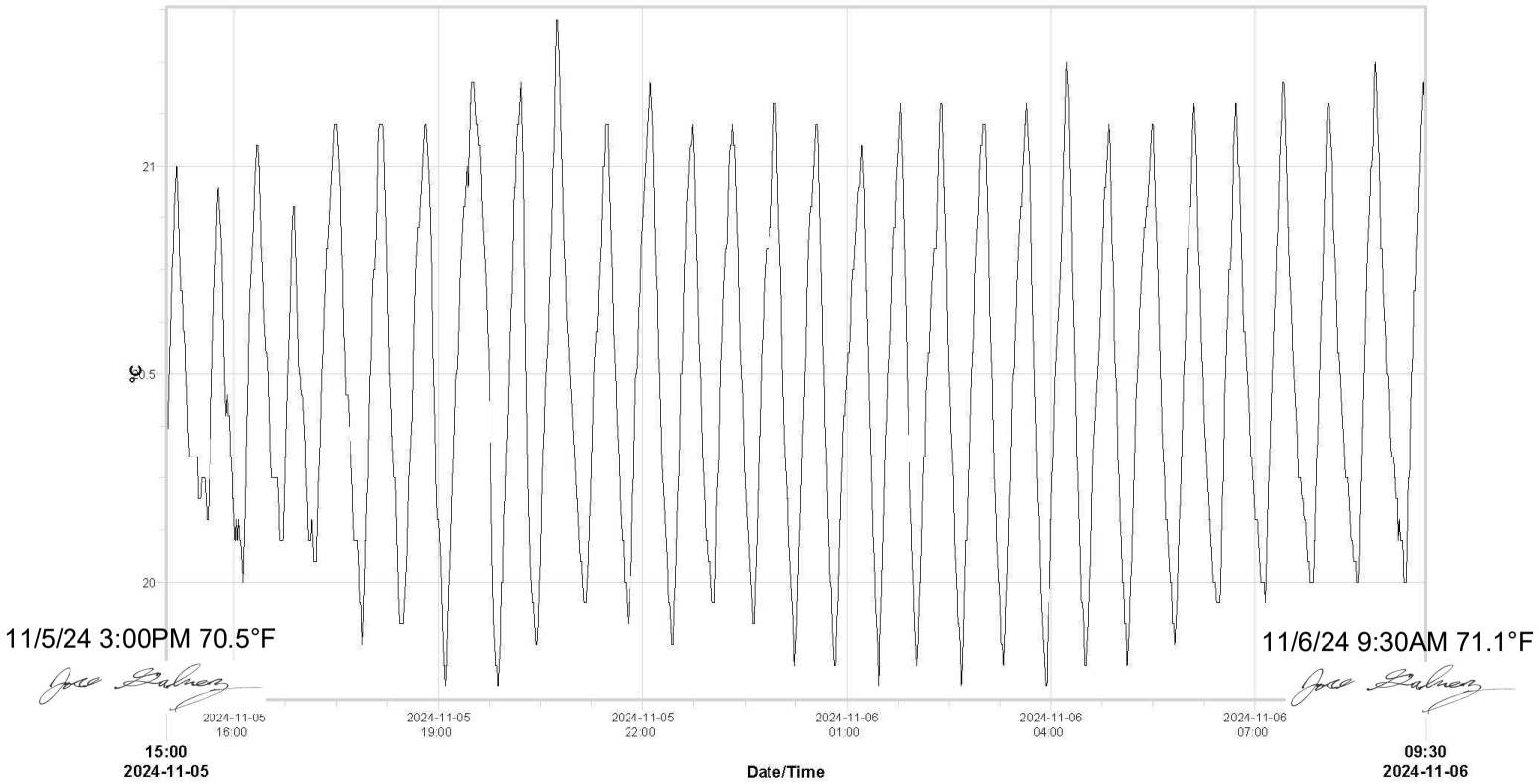
Photo No. 62. Post-Test Passenger Dummy Head Contact (headrest)

Photo No. 63. Rollover 90 Degrees

Photo No. 64. Rollover 180 Degrees

Photo No. 65. Rollover 270 Degrees

Photo No. 66. Rollover 360 Degrees



Report Summary Statistics

#	Location	Zone	Color	Units
1	VSC Start Room B - Temp (2998)	viewLinc/VSC (1037)		°C

Photo No. 67. Temperature Plot

Photo No. 68. Pre-Test Manual Service Disconnect in Place

Photo No. 69. Post-Test Manual Service Disconnect in Place

Photo No. 70. Pre-Test Emergency Disconnect in Place

Photo No. 71. Post-Test Emergency Disconnect in Place

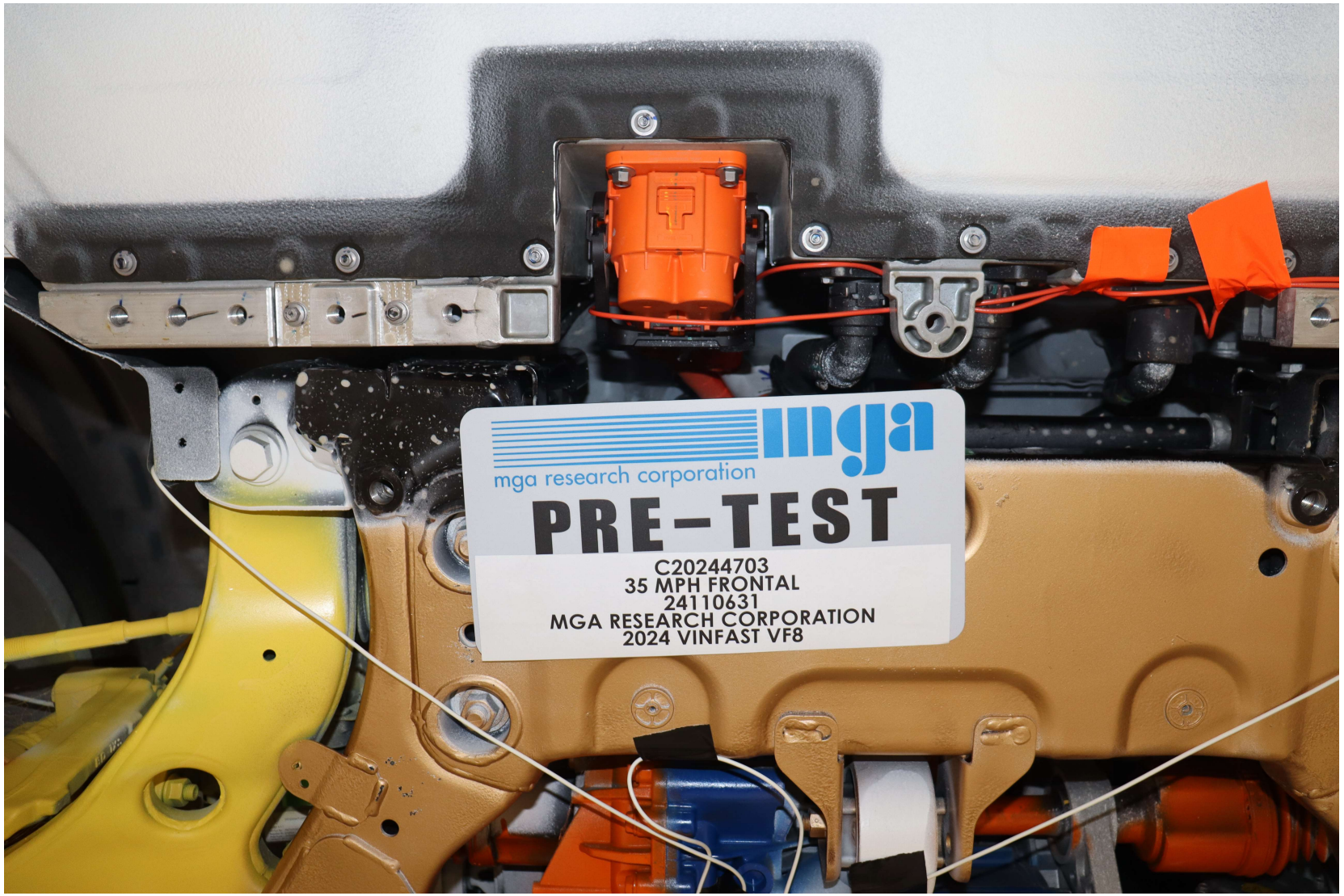


Photo No. 72. Pre-Test Voltage Monitoring Leads Attached to Electric Energy Storage System

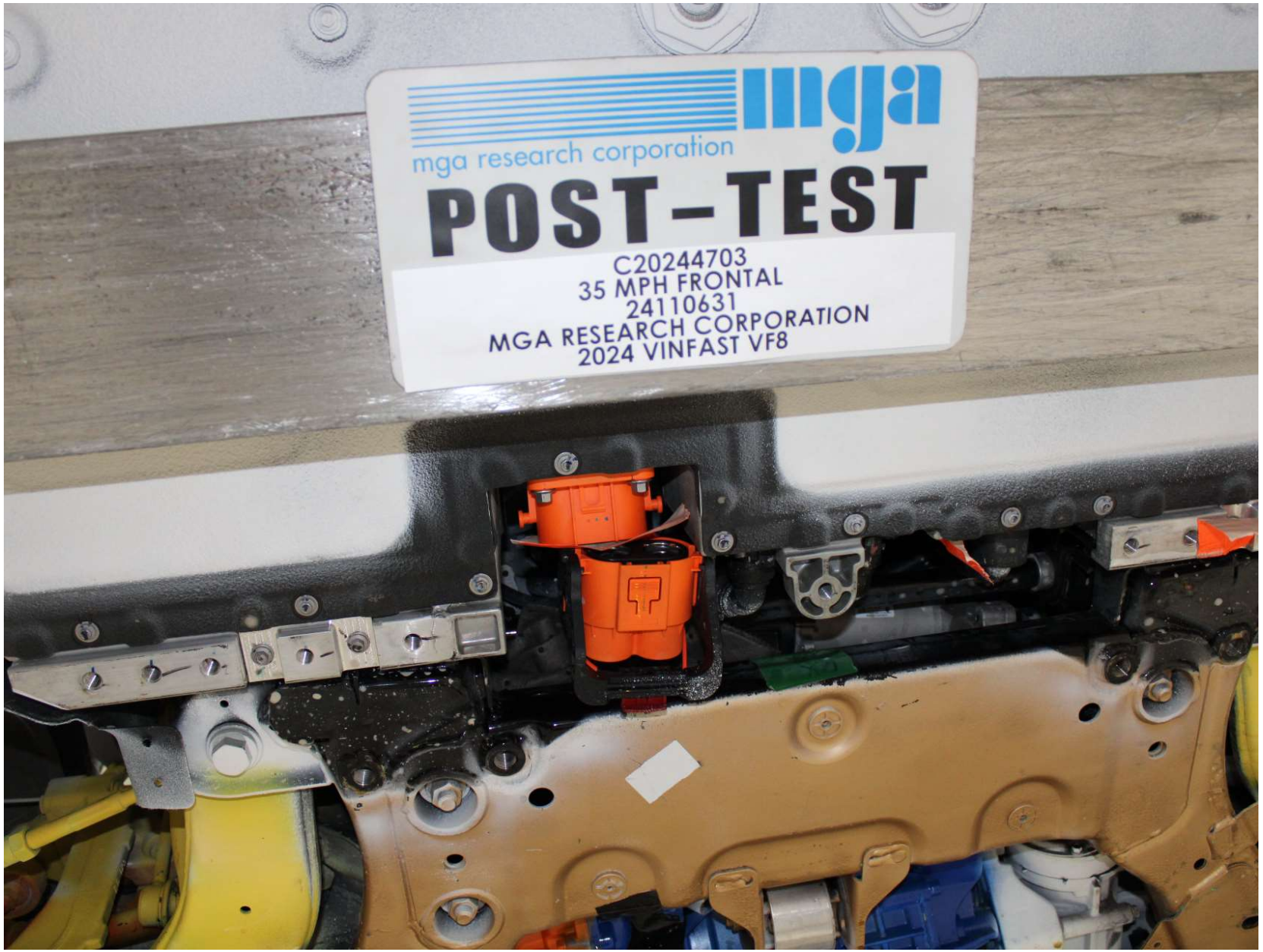


Photo No. 73. Post-Test Voltage Monitoring Leads Attached to Electric Energy Storage System

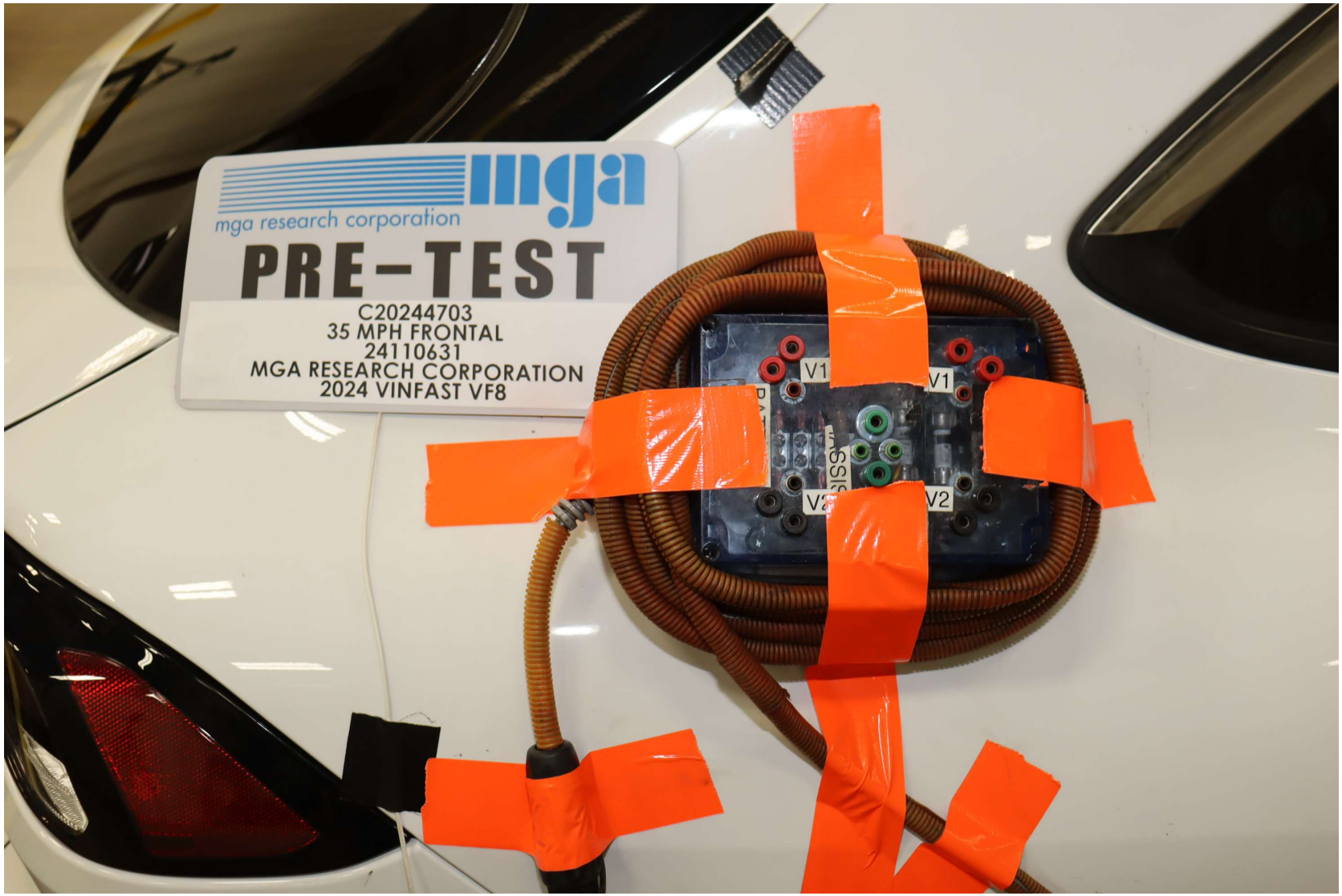


Photo No. 74. Pre-Test View of Installed Isolation Interface Port

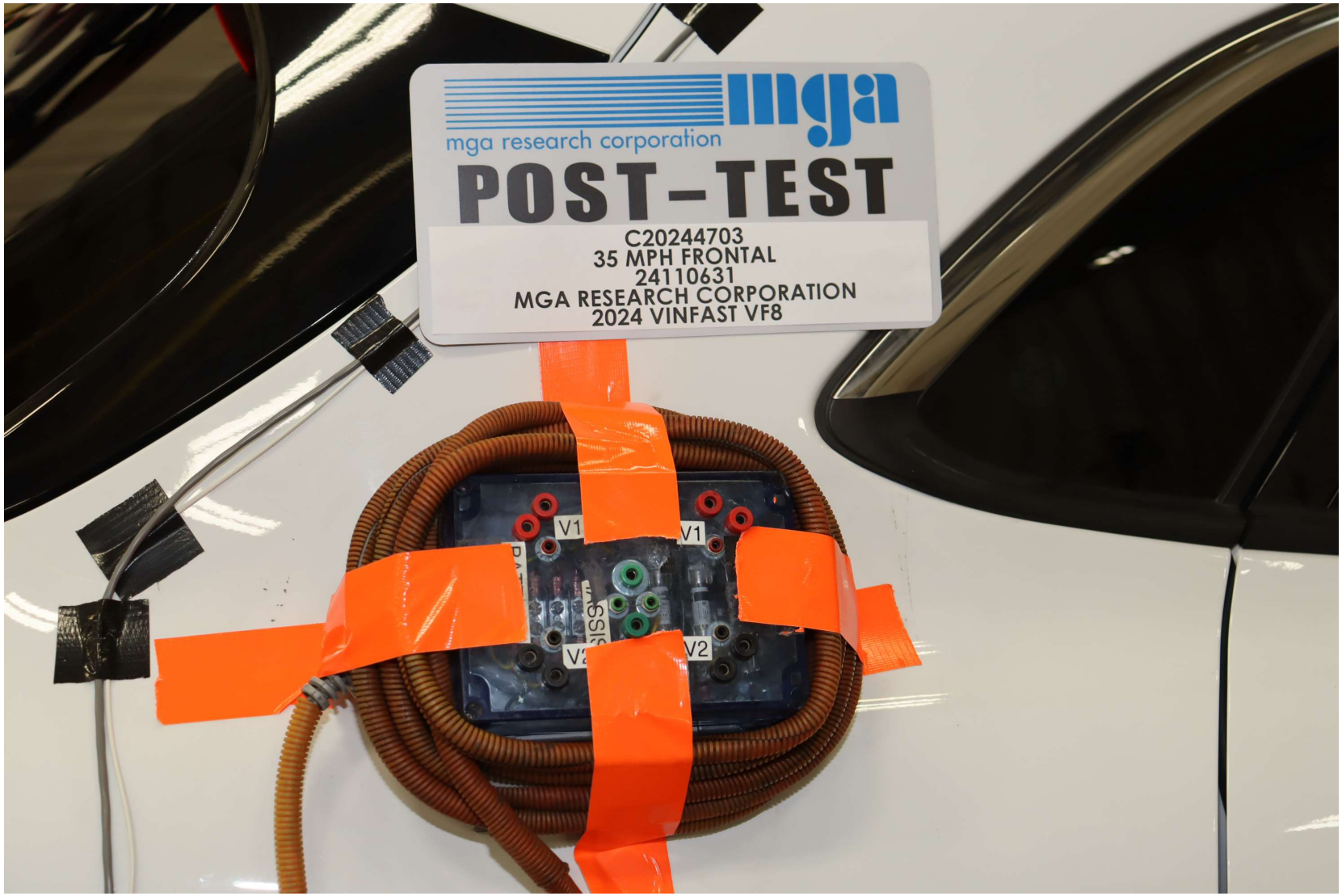


Photo No. 75. Post-Test View of Installed Isolation Interface Port

APPENDIX C

INSTRUMENTATION CALIBRATION

INSTRUMENTS FOR DRIVER DUMMY NO.: 507

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	P85158	Endevco	10/31/2024
Head Y	P85159	Endevco	10/31/2024
Head Z	P85160	Endevco	10/31/2024
Neck Load Cell	N9753	Denton	06/04/2024
Chest X	P79787	Endevco	10/31/2024
Chest Y	T30846	Endevco	10/31/2024
Chest Z	P86735	Endevco	10/31/2024
Chest Displacement	507	Humanetics	10/31/2024
Left Femur Load Cell	F8152	Denton	10/31/2024
Right Femur Load Cell	F8151	Denton	10/31/2024

INSTRUMENTS FOR PASSENGER DUMMY NO.: 510

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	T24763	Endevco	08/21/2024
Head Y	T24813	Endevco	08/21/2024
Head Z	T24814	Endevco	08/21/2024
Neck Load Cell	N1562	Denton	10/09/2024
Chest X	P88334	Endevco	08/21/2024
Chest Y	P88335	Endevco	08/21/2024
Chest Z	T30946	Endevco	08/21/2024
Chest Displacement	510	Humanetics	08/21/2024
Left Femur Load Cell	F1827	Denton	08/21/2024
Right Femur Load Cell	F1826	Denton	08/21/2024

VEHICLE INSTRUMENTS

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Left Rear Seat Crossmember X	T44127	Endevco	10/25/2024
Right Rear Seat Crossmember X	T44143	Endevco	10/25/2024
Top of Engine X	T44150	Endevco	10/25/2024
Bottom of Engine X	T44131	Endevco	10/25/2024
Right Brake Caliper X	T44141	Endevco	10/25/2024
Instrument Panel X	T44145	Endevco	10/25/2024
Left Brake Caliper X	T44129	Endevco	10/25/2024
Trunk Z	T44137	Endevco	10/25/2024