REPORT NUMBER: 208-MGA-2022-008

VEHICLE SAFETY COMPLIANCE TESTING FOR FMVSS 208, OCCUPANT CRASH PROTECTION FMVSS 212, WINDSHIELD MOUNTING FMVSS 219, WINDSHIELD INTRUSION (PARTIAL) FMVSS 301, FUEL SYSTEM INTEGRITY

VOLKSWAGEN DE MEXICO S.A. DE C.V. MEXICO
2022 VOLKSWAGEN TAOS MPV
NHTSA NO.: C20225802

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

TEST DATE: JANUARY 12, 2023

FINAL REPORT DATE: FEBRUARY 22, 2023

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.

Prepared by: Jose Galvez Date: February 22, 2023
Jose Galvez, Project Engineer

Reviewed by: David Winkelbauer Date: February 22, 2023
David Winkelbauer, Facility Director

Accepted By: Syed Rahman

Acceptance Date: February 22, 2023

Technical Report Documentation Page

1. Report No. 208-MGA-2022-008	*2. Government Accession No.*	*3. Recipient's Catalog No.*	
4. Title and Subtitle Final Report of FMVSS 208 Compliance Testing of a 2022 Volkswagen Taos NHTSA No.: C20225802		*5. Report Date* February 22, 2023 *6. Performing Organization Code* MGA	
7. Author(s) Jose Galvez, Project Engineer		*8. Performing Organization Report No.* 208-MGA-2022-008	
9. Performing Organization Name and Address MGA Research Corporation 5000 Warren Road Burlington, WI 53105		*10. Work Unit No.* *11. Contract or Grant No.* 693JJ919D000012	
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* 1/12/2023 *14. Sponsoring Agency Code* NEF-240	
15. Supplementary Notes			
16. Abstract Compliance tests were conducted on the subject 2022 Volkswagen Taos 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 40 kmph Vehicle Safety Compliance Testing FMVSS 208, “Occupant Crash Protection” FMVSS 212, “Windshield Mounting” FMVSS 219, (partial), “Windshield Zone Intrusion” FMVSS 301, “Fuel System Integrity”		*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 2022 Volkswagen Taos, NHTSA No.: C20225802, meets certain performance requirements of FMVSS 208, "Occupant Crash Protection"; FMVSS 212, "Windshield Mounting"; FMVSS 219, "Windshield Zone Intrusion"; and FMVSS 301, "Fuel System Integrity". 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: 2022 Volkswagen Taos NHTSA No.: C20225802
Test Program: FMVSS 208 Compliance Test Dates: 1/12/23

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)
- [ ] 12. Suppression tests with 12-month-old CRABI dummy (Part 572, Subpart R)
- [ ] 13. Suppression tests with Newborn infant (Part 572, Subpart K)
- [ ] 14. Suppression tests with 3-year-old dummy (Part 572, Subpart P)
- [ ] 15. Suppression tests with 6-year-old dummy (Part 572, Subpart N)
- [ ] 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))
    - [ ] Belted 5th female dummy driver (0 to 56 kmph) (S16.1(a)(2))
    - [ ] 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))
    - [X] Unbelted 5th female dummy driver (32 to 40 kmph) (S16.1(b))
    - [X] 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
- [X] 25. FMVSS 301 Frontal Test
- [ ] 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: 2022 Volkswagen Taos
Test Program: FMVSS 208 Compliance
NHTSA No.: C20225802
Test Date: 1/12/23

40 kmph Frontal Crash

Impact Angle:	0º			
Belted Dummies:		Yes	X	No

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

Test Speed (kmph):	39.5	Test Weight (kg):	1638.4

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	68	75
N_{te}	1.0	0.7	0.4
N_{tf}	1.0	0.2	0.1
N_{ce}	1.0	0.6	0.4
N_{cf}	1.0	0.1	0.5
Neck Tension	2620 N	1209	451
Neck Compression	2520 N	107	419
Chest g	60 g	42	31
Chest Displacement	52 mm	21	2
Left Femur	6805 N	3580	4891
Right Femur	6805 N	3993	3720

SECTION 4

DISCUSSION OF TESTS

Test Vehicle:	2022 Volkswagen Taos	NHTSA No.:	C20225802
Test Program:	FMVSS 208 Compliance	Test Dates:	1/12/23

Additional onboard cameras: Driver Over Shoulder and Passenger Over Shoulder, were added at the request of the COR.

SECTION 5

TEST DATA SHEETS

Test Vehicle:	2022 Volkswagen Taos	NHTSA No.:	C20225802
Test Program:	FMVSS 208 Compliance	Test Dates:	1/12/23

DATA SHEET 1

COTR VEHICLE WORK ORDER

Test Vehicle: 2022 Volkswagen Taos
Test Program: FMVSS 208 Compliance
NHTSA No.: C20225802
Test Dates: 1/12/23

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 ☐ Full Rearward ☐ Mid Position ☐ Full Forward

22-209

☐ Cosco Summit Deluxe ☐ Full Rearward ☐ Mid Position ☐ Full Forward

22-262

☐ 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: <u>After each restraint.</u>

☐ 23. Test of Reactivation of the Passenger Air Bag System with a 5th percentile Female Dummy (S20.3, 22.3, S24.3) (mid-height seat position). Perform this test after the following suppression tests: <u>After each restraint.</u>

☐ 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: 39.5 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))
    - [ ] Belted 5th female dummy driver (0 to 56 kmph) (S16.1(a)(2))
    - [ ] 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))
    - [X] Unbelted 5th female dummy driver (32 to 40 kmph) (S16.1(b))
    - [X] 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
- [X] 32. FMVSS 301 Frontal Test
- [ ] 33. FMVSS 305 Frontal Indicant Test

DATA SHEET 2

REPORT OF VEHICLE CONDITION

Test Vehicle: 2022 Volkswagen Taos NHTSA No.: C20225802
Test Program: FMVSS 208 Compliance Test Dates: 1/12/23

CONTRACT NO.: 693JJ919D000012 Date: 1/19/23
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: 2022 Volkswagen Taos MPV
MANUFACTURE DATE: 7/22

NHTSA NO.	C20225802	GVWR:	1970 kg (4343 lbs)
BODY COLOR:	Deep Black Pearl	GAWR (Fr):	1040 kg (2293 lbs)
VIN:	3VVRX7B28NM091809	GAWR (Rr):	980 kg (2161 lbs)

ODOMETER READINGS: ARRIVAL (miles): 340 DATE: 12/13/22
COMPLETION (miles): 342 DATE: 1/12/23

PURCHASE PRICE: ($) 29,280.00

DEALER'S NAME: Volkswagen of Perrysburg
26875 N Dixie Hwy, Perrysburg, OH 43551

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, 301

VEHICLE: 2022 Volkswagen Taos NHTSA NO.: C20225802

REMARKS:

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

Spare Tire and Cover, Jack and Tools, Cargo Area Carpet, Cargo Area Trim

Explanation for equipment removal:

Components removed for instrumentation installation and to meet target weight.

Test Vehicle Condition:

25 mph frontal impact damage- front suspension & structure damaged, hood & front quarter panels damaged, radiator damaged, air bags & pretensioners deployed, Stoddard in fuel system

RECORDED BY:	Jose Galvez	DATE:	1/19/23
APPROVED BY:	David Winkelbauer	DATE:	1/19/23

# #

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: 2022 Volkswagen Taos
Test Program: FMVSS 208 Compliance
Test Technician: Ben Storey

NHTSA No.: C20225802
Test Date: 1/12/23

Certification Label (Part 567)	
Manufacturer:	Volkswagen de Mexico S.A. de C.V.
Date of Manufacture:	7/22
VIN:	3VVRX7B28NM091809
Vehicle Certified As (Pass. Car/MPV/Truck/Bus):	MPV
Front Axle GVWR:	1040 kg (2293 lbs)
Rear Axle GVWR:	980 kg (2161 lbs)
Total GVWR:	1970 kg (4343 lbs)

Tire Placard for Motor Vehicles with GVWR of 10,000 lb or Less and Passenger Cars (571.110)	
Vehicle Capacity Weight:	425 kg (937 lbs)
Designated Seating Capacity Front:	2
Designated Seating Capacity Rear:	3
Total Designated Seating Capacity:	5
Recommended Cold Tire Inflation Pressure Front:	250 kpa (36 psi)
Recommended Cold Tire Inflation Pressure Rear:	250 kpa (36 psi)
Recommended Tire Size:	215/50R18
Tire Size on Vehicle:	215/50R18

Signature: Ben Storey

Date: 1/12/23

DATA SHEET 32

VEHICLE WEIGHT, FUEL TANK, AND ATTITUDE DATA

Test Vehicle: 2022 Volkswagen Taos
Test Program: FMVSS 208 Compliance
Test Technician: Ben Storey

NHTSA No.: C20225802
Test Date: 1/12/23

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

X	1.	Fill the transmission with transmission fluid to the satisfactory range.
X	2.	Drain fuel from vehicle.
X	3.	Run the engine until fuel remaining in the fuel delivery system is used and the engine stops.
X	4.	Record the useable fuel tank capacity supplied by the COTR.
X		Useable Fuel Tank Capacity supplied by COTR: 50.7 liters (13.4 gallons)
X	5.	Record the fuel tank capacity supplied in the owner's manual.
X		Useable Fuel Tank Capacity in owner's manual: 50.7 liters (13.4 gallons)
X	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.
X		Amount Added: 50.7 liters (13.4 gallons)
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:	36 psi	LF:	36 psi	RR:	36 psi	LR:	36 psi
Owner's manual pressure:	RF:	36 psi	LF:	36 psi	RR:	36 psi	LR:	36 psi
Actual inflated pressure:	RF:	36 psi	LF:	36 psi	RR:	36 psi	LR:	36 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):	424.5	Right Rear (kg):	296.7
Left Front (kg):	450.0	Left Rear (kg):	292.1
Total Front (kg):	874.5	Total Rear (kg):	588.8
% Total Weight:	59.8	% Total Weight:	40.2
UVW = TOTAL FRONT PLUS TOTAL REAR (KG):			1463.3

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:	754	LF:	747	RR:	755	LR:	755

X 14. Calculate the Rated Cargo and Luggage Weight (RCLW): 85 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 = 425 kg (937 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) = 425 kg - (68 kg x 5) = 85 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): 1646.1 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):	445.9	Right Rear (kg):	367.4
Left Front (kg):	471.7	Left Rear (kg):	361.1
Total Front (kg):	917.6	Total Rear (kg):	728.5
% Total Weight:	55.7	% Total Weight:	44.3
% GVW	52.8	% GVW	49.7
(% GVW = Axle GVW divided by Vehicle GVW)			
Fully Loaded Weight = Total Front Plus Total Rear (kg):			1646.1

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:	757	LF:	749	RR:	726	LR:	727

X 17. Drain the fuel system.

X 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.

X Fuel tank capacity x .94 = 50.7 liters (13.4 gallons) x .94 = 47.7 liters (12.6 gallons)

X Amount added: 47.3 liters (12.46 gallons) 93.3%

X 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)

1646.3 kg = 1463.3 kg + 85.0 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 = 1641.8 kg

Min. Test Weight = Calculated Test Weight - 9 kg = 1637.3 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:
Cargo area trim, spare tire, jack/tools, First aid kit

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: 28.6 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):	456.3	Right Rear (kg):	353.8
Left Front (kg):	481.3	Left Rear (kg):	347.0
Total Front (kg):	937.6	Total Rear (kg):	700.8
% Total Weight:	57.2	% Total Weight:	42.8
% GVW	52.8	% GVW	49.7
(% GVW = Axle GVW divided by Vehicle GVW)			
TOTAL FRONT PLUS TOTAL REAR (kg):			1638.4

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:	754	LF:	747	RR:	733	LR:	733

X 30. Summary of test attitude

X 30.1 AS DELIVERED:

RF:	754	LF:	747	RR:	755	LR:	755

AS TESTED:

RF:	754	LF:	747	RR:	733	LR:	733

FULLY LOADED:

RF:	757	LF:	749	RR:	726	LR:	727

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: Ben Storey Date: 1/12/23

I certify that I have read and performed each instruction.

DATA SHEET 33

VEHICLE ACCELEROMETER LOCATION AND MEASUREMENT

Test Vehicle: 2022 Volkswagen Taos
Test Program: FMVSS 208 Compliance
Test Technician: Ben Storey

NHTSA No.: C20225802
Test Date: 1/12/23

IMPACT ANGLE:	0°							
BELTED DUMMIES (YES/NO):	NO							
TEST SPEED:	X	32 to 56 kmph		0 to 48 kmph		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.

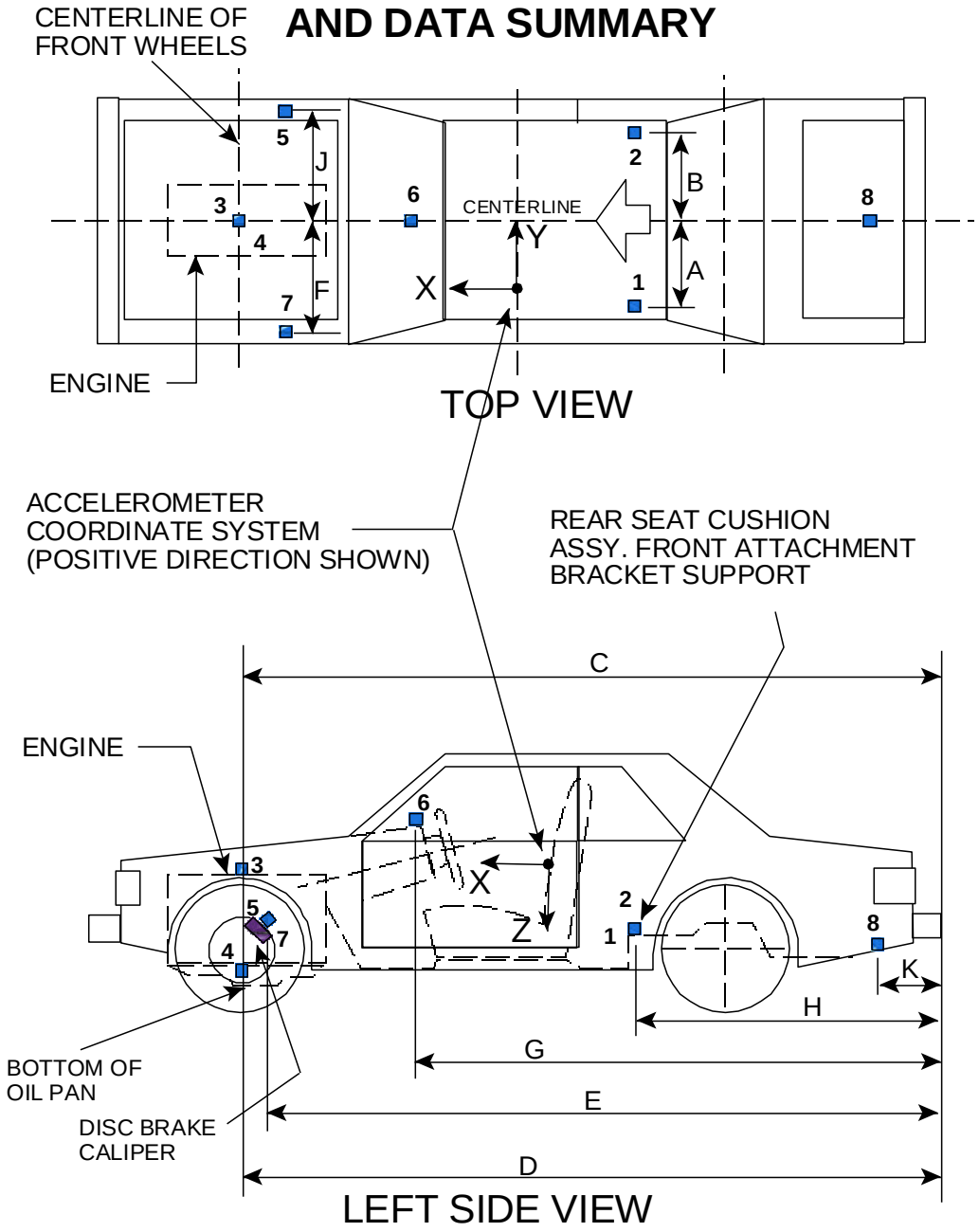
X 8. Find the location where a vertical plane through the longitudinal centerline of the vehicle intersects the floor of the trunk. Install an accelerometer on the trunk floor at this intersection to record z-direction accelerations. Record the location on the following chart.

REMARKS:

I certify that I have read and performed each instruction.

Signature: Ben Storey Date: 1/12/23

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)	321	
B (RH Rear Seat Xmbr)	321	
C (Engine Top)	3609	
D (Engine Bottom)	3713	
E (Caliper)	Right Side: 3658	Left Side: 3658
F (Left Caliper)	665	
G (IP)	2829	
H (Seat)	1745	
J (Right Caliper)	665	
K (Trunk)	962	
POST TEST VALUES		
A (LH Rear Seat Xmbr)	321	
B (RH Rear Seat Xmbr)	321	
C (Engine Top)	3580	
D (Engine Bottom)	3701	
E (Caliper)	Right Side: 3697	Left Side: 3704
F (Left Caliper)	681	
G (IP)	2888	
H (Seat)	1753	
J (Right Caliper)	678	
K (Trunk)	1000	

DATA SHEET 34

PHOTOGRAPHIC TARGETS

Test Vehicle: 2022 Volkswagen Taos
Test Program: FMVSS 208 Compliance
Test Technician: Ben Storey

NHTSA No.: C20225802
Test Date: 1/12/23

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

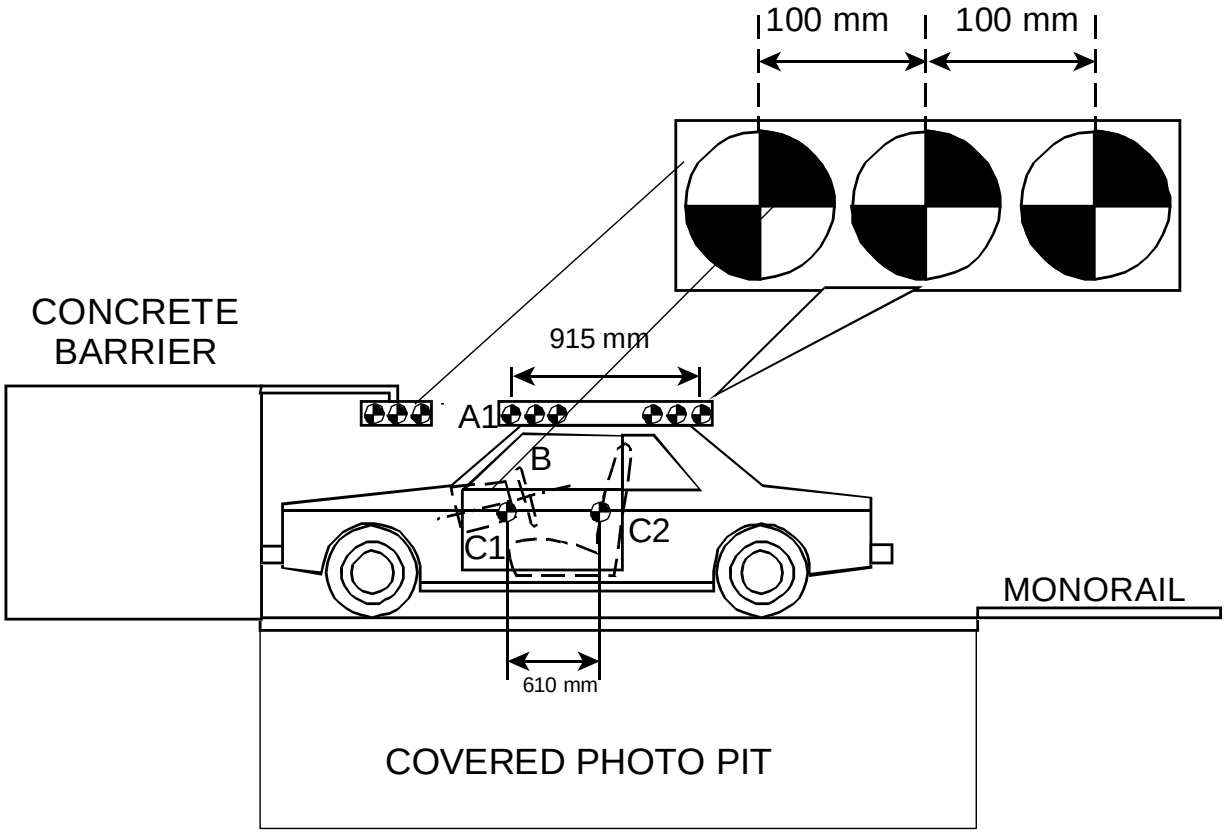
X	2.	**Barrier Targeting**
X	2.1	Fix two stationary targets D1 and D2 to the barrier as shown in the Figure 28A. One target is in the vertical longitudinal plane that is coincident with the midsagittal plane of the driver dummy. The other is in the vertical longitudinal plane that is coincident with 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: Ben Stoney Date: 1/12/23

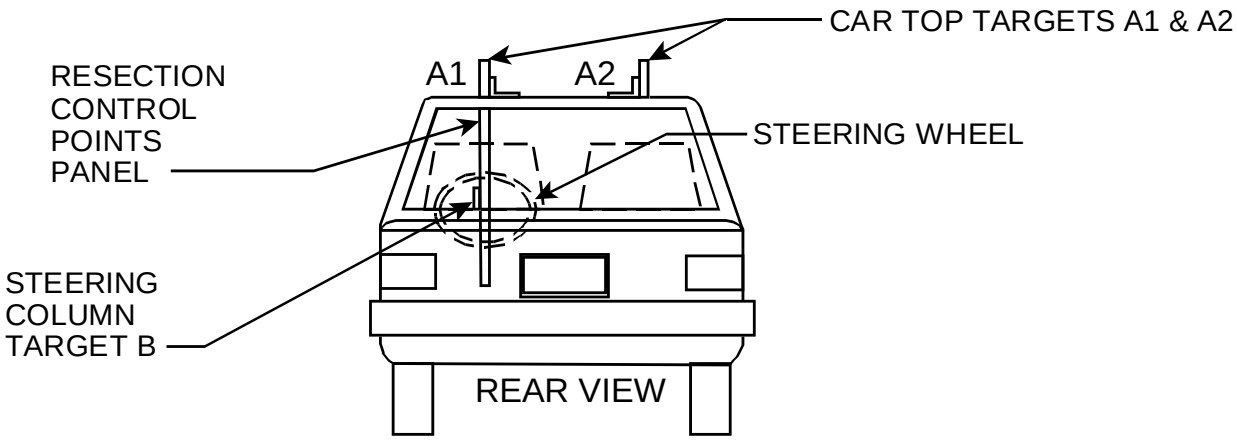
I certify that I have read and performed each instruction.

REFERENCE PHOTO TARGETS

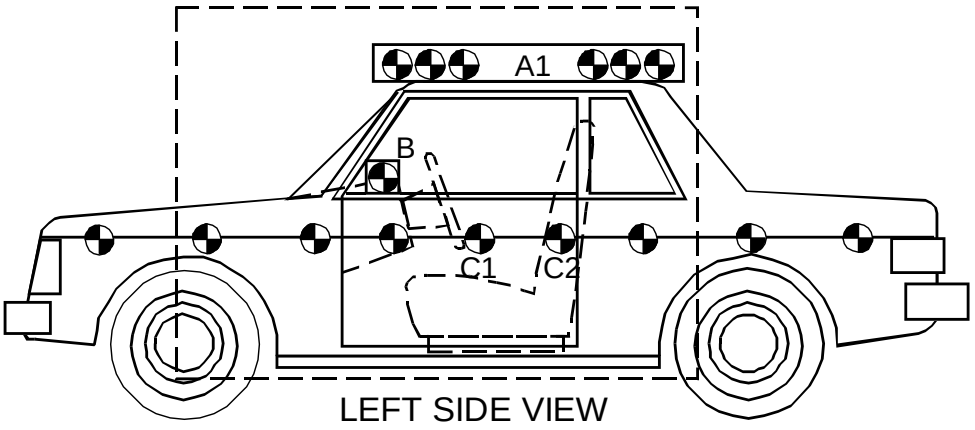


LEFT SIDE VIEW

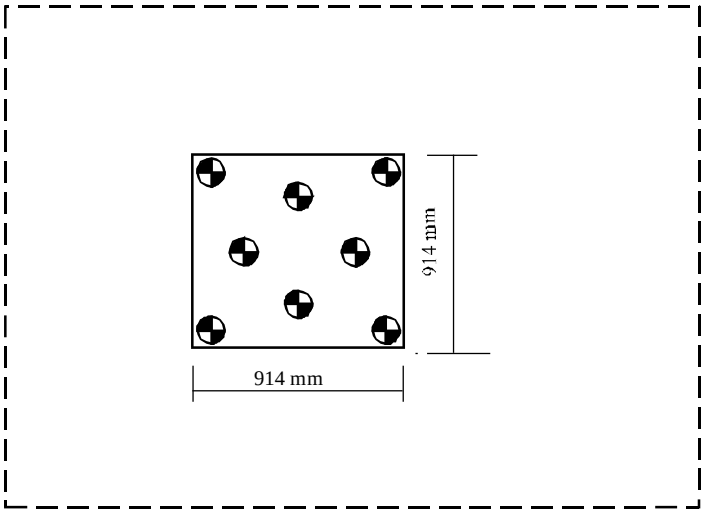
RESECTION PANEL TARGETING ALIGNMENT



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

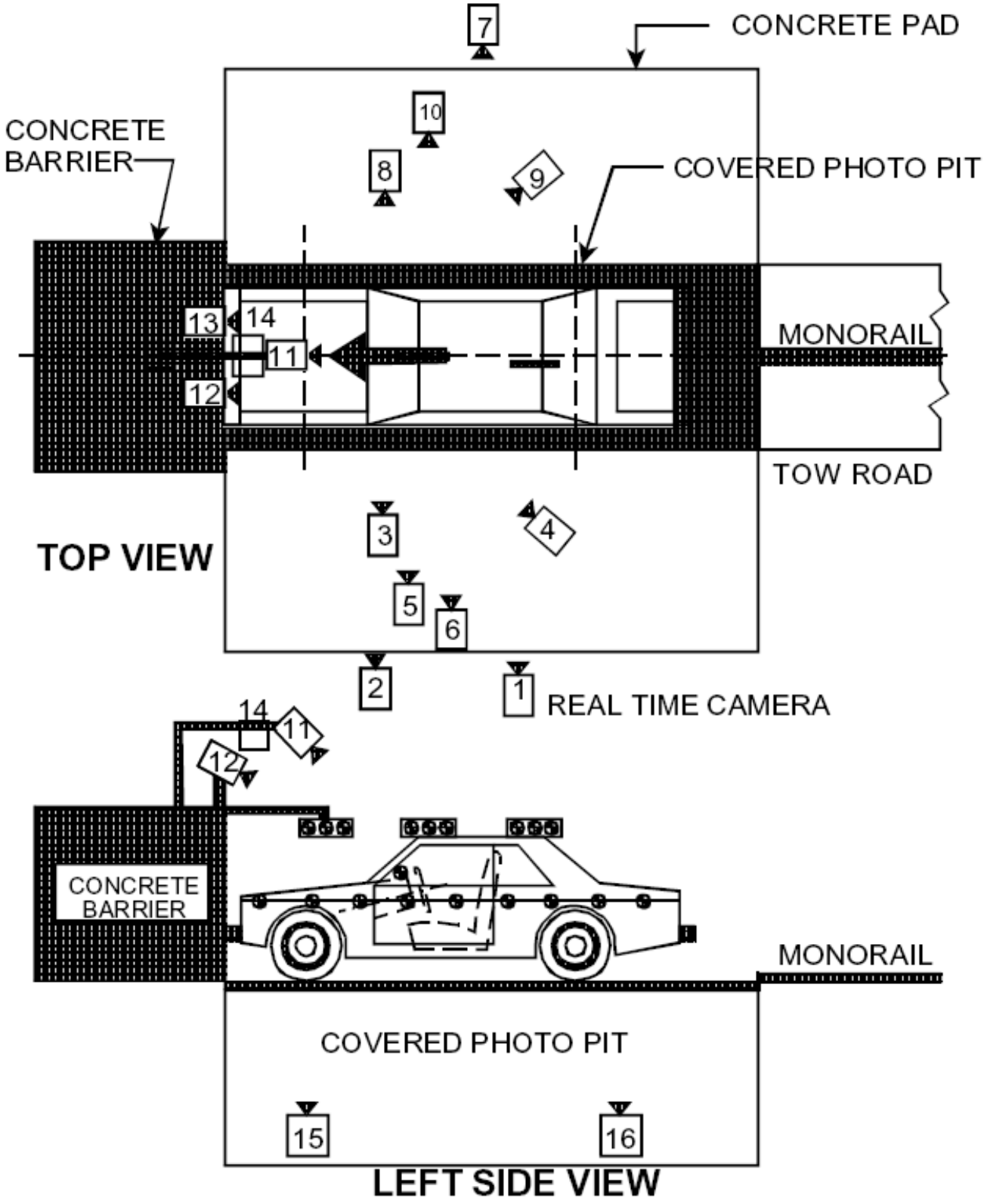
Test Vehicle: 2022 Volkswagen Taos
Test Program: FMVSS 208 Compliance

NHTSA No.: C20225802
Test Date: 1/12/23
Time: 11:00 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)	1350	-5460	1290	24	1000
3	Left Side View (Driver)	1690	-7200	1780	50	1000
4	Left Side View (B-post aimed toward center of steering wheel)	5730	-5940	1890	75	1000
5	Left Side View (Steering Column)	1060	-5800	1240	50	1000
6	Left Side View (Steering Column)	960	-5790	820	50	1000
7	Right Side View (Overall)	1900	5570	1260	16	1000
8	Right Side View (Passenger)	1630	6620	1780	50	1000
9	Right Side View (Angle)	7700	5450	1790	75	1000
10	Right Side View (Front door)	1180	5380	1250	24	1000
11	Front View Windshield	-150	0	2310	11	1000
12	Front View Driver	-70	-370	2230	25	1000
13	Front View Passenger	-70	370	2230	25	1000
14	Overhead Barrier Impact View	3100	0	6820	11	1000
15	Pit Camera Engine View	1290	0	-3340	24	1000
16	Pit Camera Fuel Tank View	3280	0	-3340	24	1000
17	Onboard Driver Side Over Shoulder	-	-	-	12	1000
18	Onboard Passenger Side Over Shoulder	-	-	-	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: 2022 Volkswagen Taos
Test Program: FMVSS 208 Compliance
Test Technician: Keegan Strockis

NHTSA No.: C20225802
Test Date: 1/12/23

IMPACT ANGLE:	0°						
BELTED DUMMIES (YES/NO):	NO						
TEST SPEED:	X	32 to 40 kmph		0 to 48 kmph		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)
__ 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: 24.0°
Minimum angle: 12.4°
Mid-angle: 18.2°

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: _0.0_ 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_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: 22.0 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.

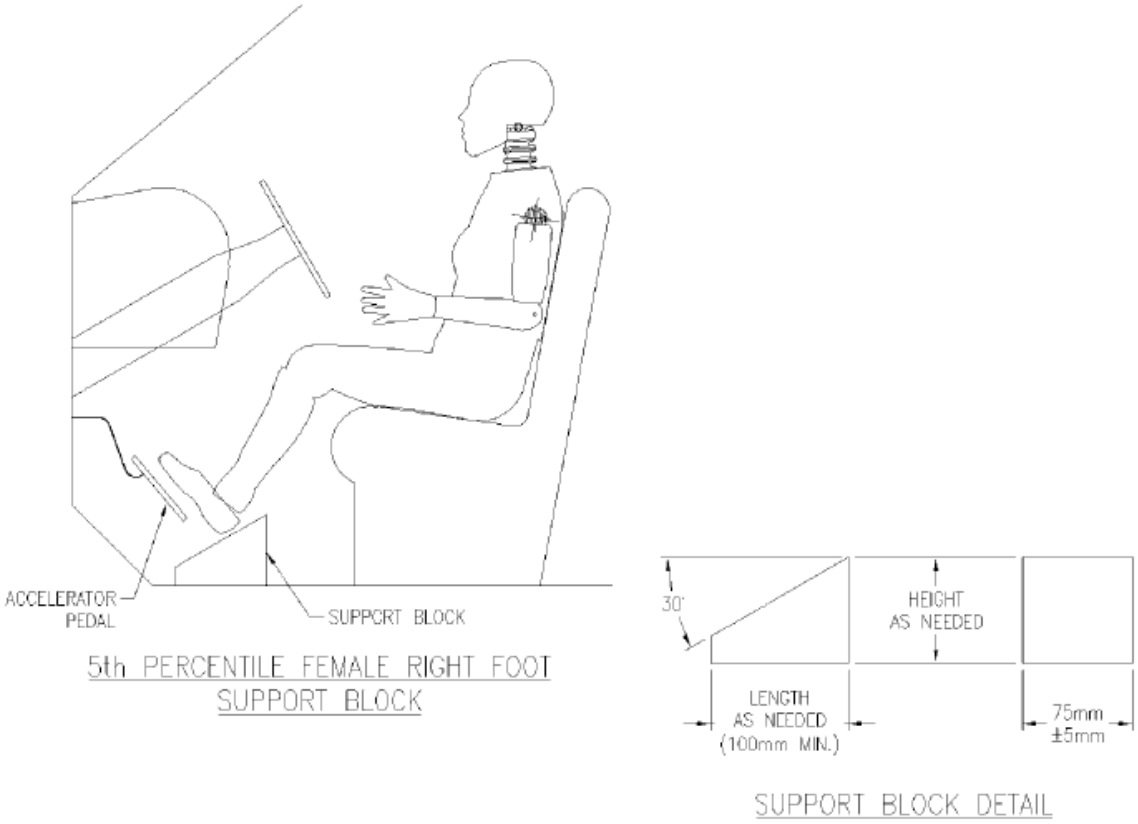


FIGURE G1

_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.

__ 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)

_X_ N/A Dummies are unbelted for this test.

__ 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:

Actual Position:

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

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

__ 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: Keegan Stracks Date: 1/12/23

DATA SHEET 36 - APPENDIX G

DUMMY POSITIONING PROCEDURES

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

Test Vehicle: 2022 Volkswagen Taos
Test Program: FMVSS 208 Compliance
Test Technician: Keegan Strockis

NHTSA No.: C20225802
Test Date: 1/12/23

IMPACT ANGLE:	0°						
BELTED DUMMIES (YES/NO):	NO						
TEST SPEED:	X	32 to 40 kmph		0 to 48 kmph		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: 18.0°
Minimum angle: 14.0°
Mid-angle: 16.0°

_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)

_X_ 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)

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

___ 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.

___ 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)

___ 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)

___ 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: 20.1 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

__ 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)
_X_ N/A, Unbelted test

__ 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:
Actual Position:

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

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

__ 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: Keegan Stracks Date: 1/12/23

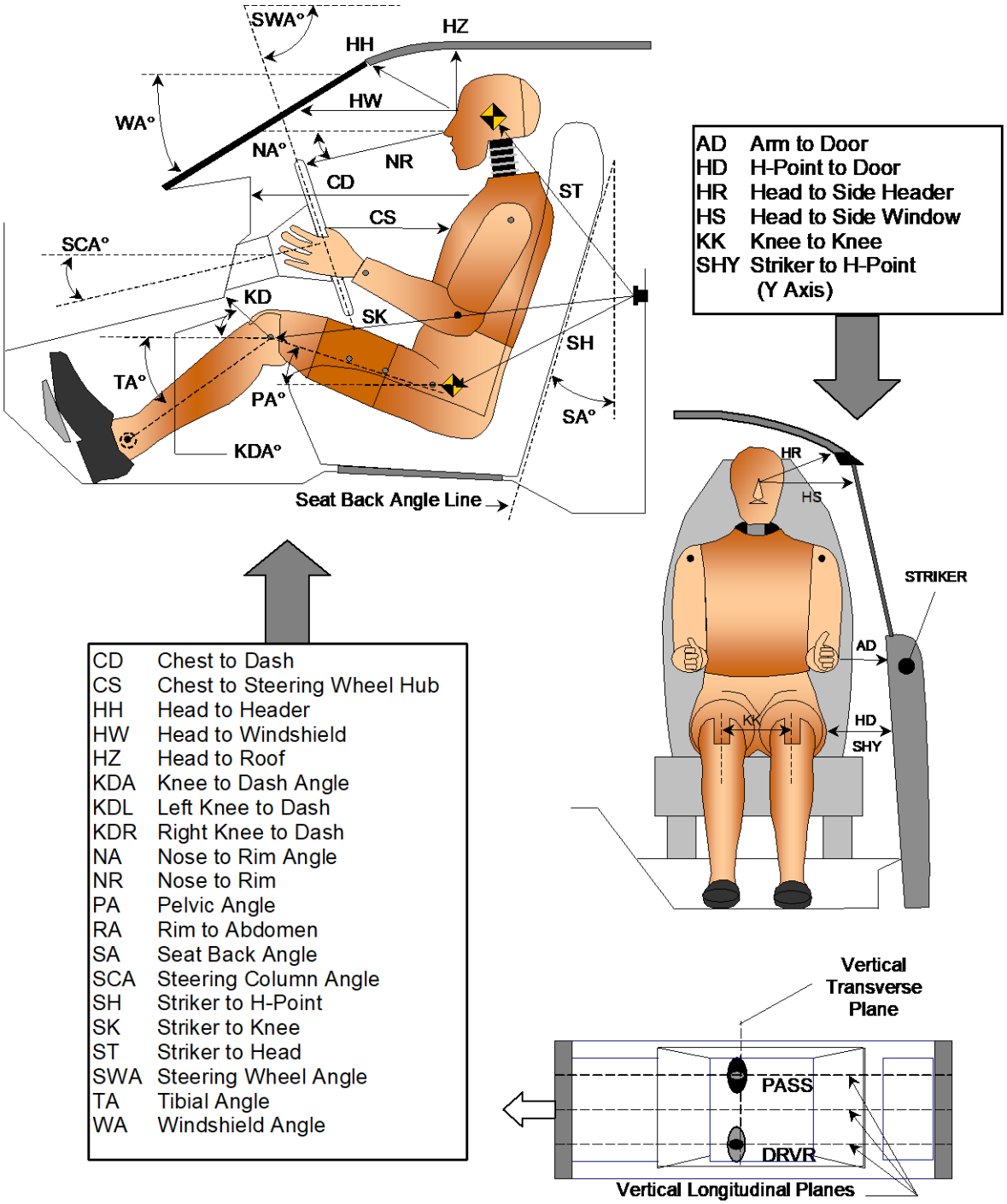
DATA SHEET 37

DUMMY MEASUREMENTS

Test Vehicle: 2022 Volkswagen Taos
Test Program: FMVSS 208 Compliance
Test Technician: Keegan Strockis

NHTSA No.: C20225802
Test Date: 1/12/23

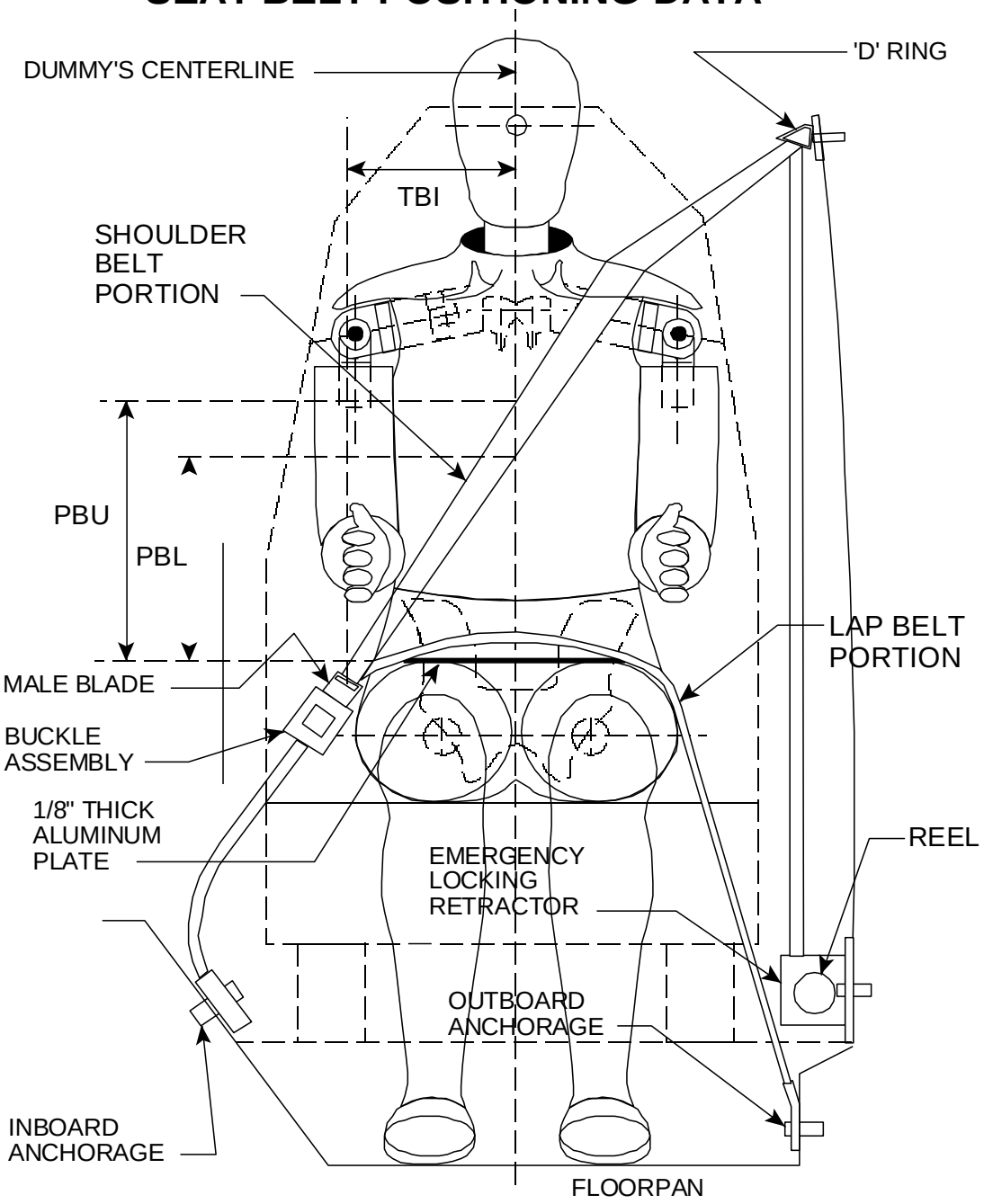
DUMMY MEASUREMENTS FOR FRONT SEAT OCCUPANTS



TEST DUMMY POSITION MEASUREMENTS

Code	Measurement Description	Driver SN ER7897		Passenger SN ER6928	
		Length (mm)	Angle (°)	Length (mm)	Angle (°)
WA	Windshield Angle		24.8		
SWA	Steering Wheel Angle		63.3		
SCA	Steering Column Angle		27.7		
SA	Seat Back Angle (On Headrest Post)		15.1		15.7
HZ	Head to Roof (Z)	258		255	
HH	Head to Header	342	43.0	334	50.5
HW	Head to Windshield	709	0.0	675	0.0
HR	Head to Side Header (Y)	279		277	
NR	Nose to Rim	301	3.5		
CD	Chest to Dash	467		362	
CS	Chest to Steering Hub	239	19.1		
RA	Rim to Abdomen	127	0.0		
KDL	Left Knee to Dash	119	37.2	94	
KDR	Right Knee to Dash	102		102	33.9
PA	Pelvic Angle		22.0		20.1
TA	Tibia Angle		59.7		59.1
KK	Knee to Knee (Y)	329		230	
SK	Striker to Knee	676	95.5	684	102.5
ST	Striker to Head	422	24.9	433	28.0
SH	Striker to H-Point	411	125.2	405	119.3
SHY	Striker to H-Point (Y)	296		303	
HS	Head to Side Window	376		382	
HD	H-Point to Door (Y)	164		176	
AD	Arm to Door (Y)	163		103	
AA	Ankle to Ankle	330		167	

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	N/A	N/A
PBL - Top surface of reference to belt lower edge	mm	N/A	N/A

DATA SHEET 38

CRASH TEST

Test Vehicle: 2022 Volkswagen Taos
Test Program: FMVSS 208 Compliance
Test Technician: Ben Storey

NHTSA No.: C20225802
Test Date: 1/12/23

IMPACT ANGLE:	0°						
BELTED DUMMIES (YES/NO):	NO						
TEST SPEED:	X	32 to 56 kmph		0 to 48 kmph		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 1.0 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.

250 kpa front left tire 250 kpa specified on tire placard or in owner information
250 kpa front right tire 250 kpa specified on tire placard or in owner information
250 kpa rear left tire 250 kpa specified on tire placard or in owner information
250 kpa rear right tire 250 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: 39.5 kmph
X 18. Vehicle rebound from the barrier: 58 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 Dash Panel
- [X] Passenger Dummy: Head to Air Bag; Chest to Air Bag; Knees to Dash Panel

REMARKS:

Signature: Ben Stoney Date: 1/12/23

I certify that I have read and performed each instruction.

DATA SHEET 40

ACCIDENT INVESTIGATION MEASUREMENTS

Test Vehicle: 2022 Volkswagen Taos
Test Program: FMVSS 208 Compliance
Test Technician: Ben Storey

NHTSA No.: C20225802
Test Date: 1/12/23

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

Vehicle Year/Make/Model/Body Style:	2022 Volkswagen Taos MPV
VIN:	3VVRX7B28NM091809
Wheelbase:	2688 mm
Build Date:	7/22
Vehicle Size Category:	3
Test Weight:	1638.4 kg
Front Overhang:	2692 mm
Overall Width:	1798 mm
Overall Length Center:	4477 mm

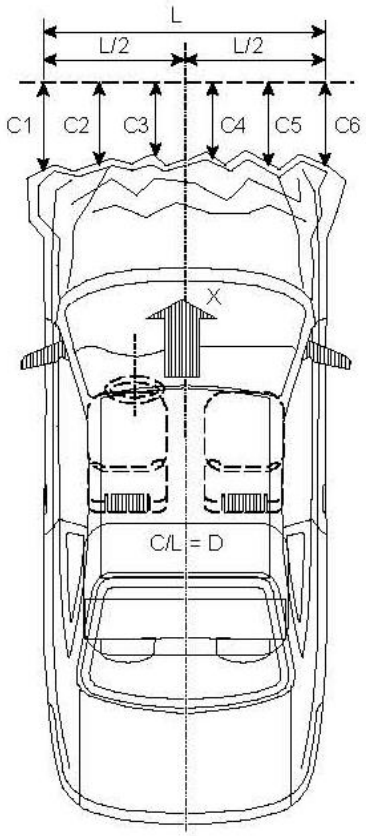
Accelerometer Data	
Location:	As per measurements on Data Sheet 33
Linearity:	>99.9%

Integration Algorithm:	Trapezoidal
Vehicle Impact Speed:	39.5 kmph
Time of Separation:	102.1 ms
Velocity Change:	45.0 kmph

CRUSH PROFILE

Collision Deformation Classification: 12FDEW1
Midpoint of Damage: Vehicle Longitudinal Centerline
Damage Region Length (mm): 1120
Impact Mode: Frontal Barrier

No.	Measurement Description	Units	Pre-Test	Post-Test	Difference
C1	Crush zone 1 at left side	mm	4381	4156	225
C2	Crush zone 2 at left side	mm	4452	4168	284
C3	Crush zone 3 at left side	mm	4477	4209	268
C4	Crush zone 4 at right side	mm	4477	4253	224
C5	Crush zone 5 at right side	mm	4452	4252	198
C6	Crush zone 6 at right side	mm	4381	4256	125



REMARKS:

Signature: _____ Date: 1/12/23

I certify that I have read and performed each instruction.

DATA SHEET 41

WINDSHIELD MOUNTING (FMVSS 212)

Test Vehicle: 2022 Volkswagen Taos
Test Program: FMVSS 208 Compliance
Test Technician: Ben Storey

NHTSA No.: C20225802
Test Date: 1/12/23

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

1. Pre-Crash

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

Retained with glue 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): 4 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%?

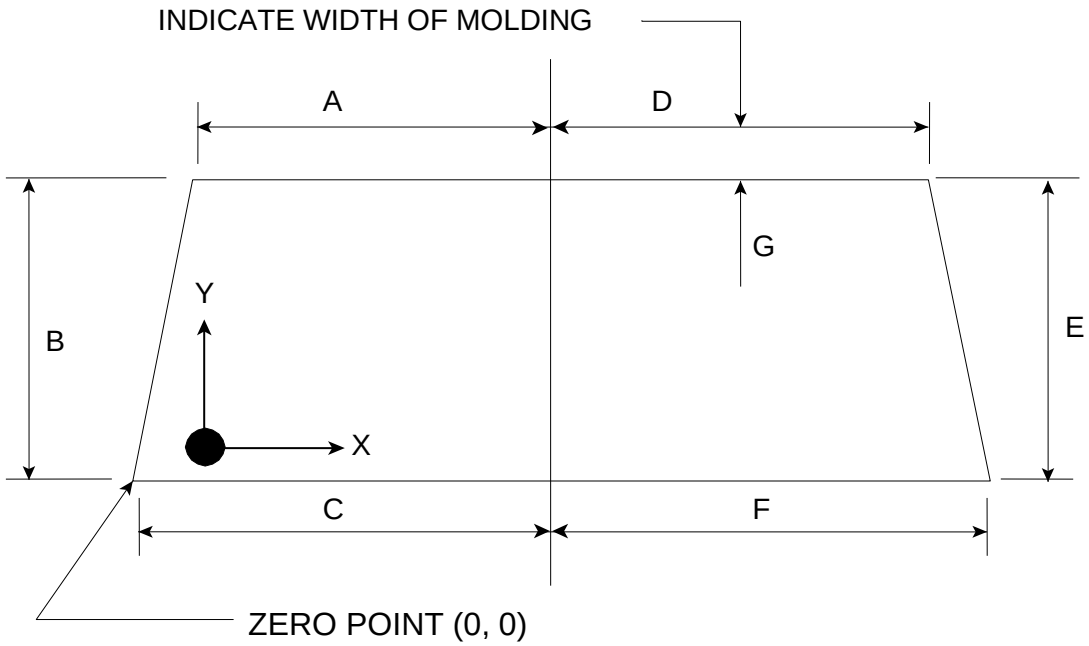
- [ ] Yes, Fail
- [ ] No, Pass

WINDSHIELD RETENTION MEASUREMENTS

	Dimension	Pre-Crash (mm)	Post-Crash (mm)	Percent Retention (Post-Test ÷ Pre-Crash)
Left Side	A	611	611	100%
	B	816	816	100%
	C	742	742	100%
	Total	2169	2169	100%
Right Side	D	611	611	100%
	E	816	816	100%
	F	742	742	100%
	Total	2169	2169	100%

Indicate area of mounting failure: NONE

FRONT VIEW OF WINDSHIELD



REMARKS: NONE

Signature: Ben Stowers Date: 1/12/23

I certify that I have read and performed each instruction.

DATA SHEET 42

WINDSHIELD ZONE INTRUSION (FMVSS 219)

Test Vehicle: 2022 Volkswagen Taos
Test Program: FMVSS 208 Compliance
Test Technician: Ben Storey

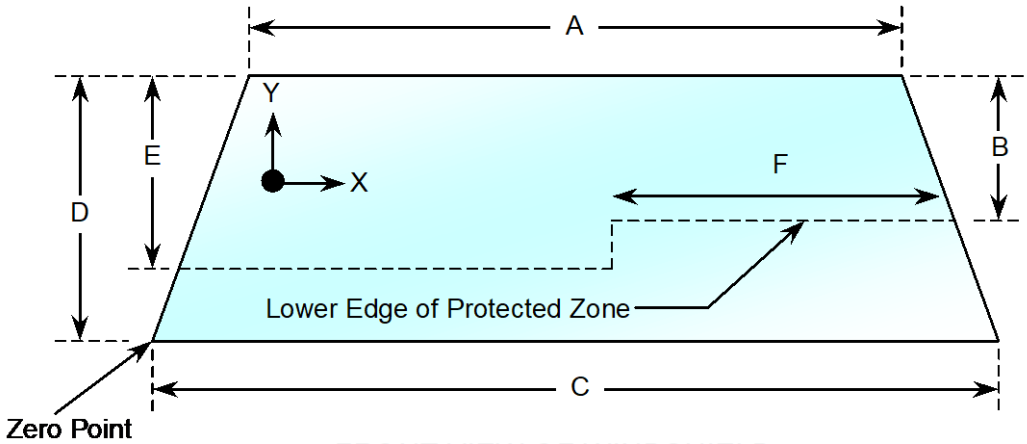
NHTSA No.: C20225802
Test Date: 1/12/23

IMPACT ANGLE:	0°						
BELTED DUMMIES (YES/NO):	NO						
TEST SPEED:	X	32 to 56 kmph		0 to 48 kmph		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	1222
B	mm	437
C	mm	1484
D	mm	816
E	mm	481
F	mm	558

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: Ben Stoney Date: 1/12/23

DATA SHEET 43

FUEL SYSTEM INTEGRITY (FMVSS 301)

Test Vehicle: 2022 Volkswagen Taos
Test Program: FMVSS 208 Compliance
Test Technician: Chris Roach

NHTSA No.: C20225802
Test Date: 1/12/23

TYPE OF IMPACT:	25 mph Unbelted

Stoddard Solvent Spillage Measurements

A. From impact until vehicle motion ceases: 0.0 grams
(Maximum Allowable = 28 grams)

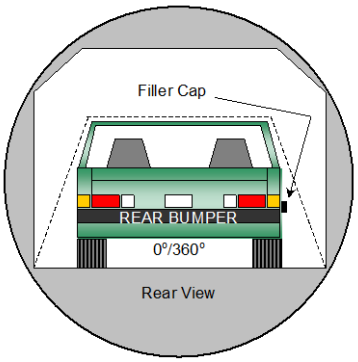
B. For the 5 minute period after motion ceases: 0.0 grams
(Maximum Allowable = 142 grams)

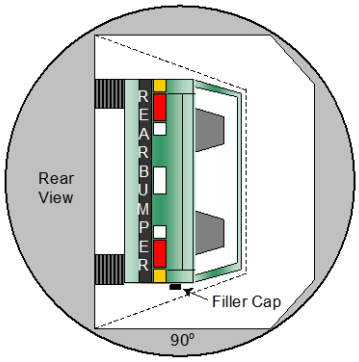
C. For the following 25 minutes: 0.0 grams
(Maximum Allowable = 28 grams/minute)

D. Spillage: NONE

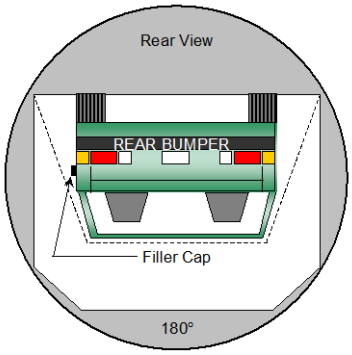
REMARKS: NO SPILLAGE

FMVSS 301 STATIC ROLLOVER DATA

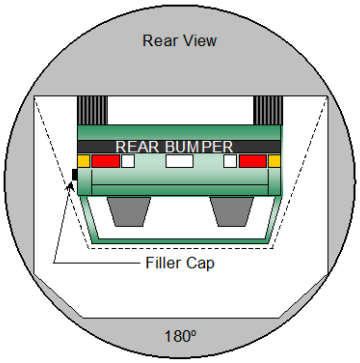


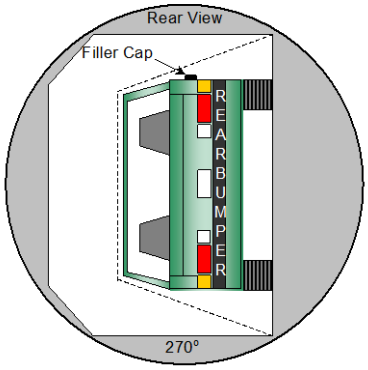


0° to 90°

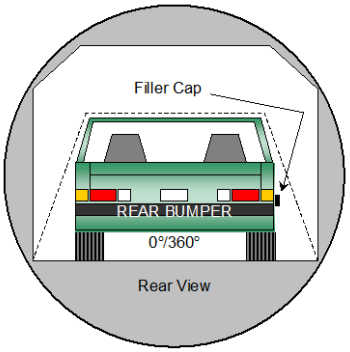


90° to 180°





180° to 270°



270° to 360°

1. The specified fixture rollover rate for each 90° of rotation is 60 to 180 seconds.
2. The position hold time at each position is 300 seconds (minimum).
3. Details of Stoddard Solvent spillage locations: **None**

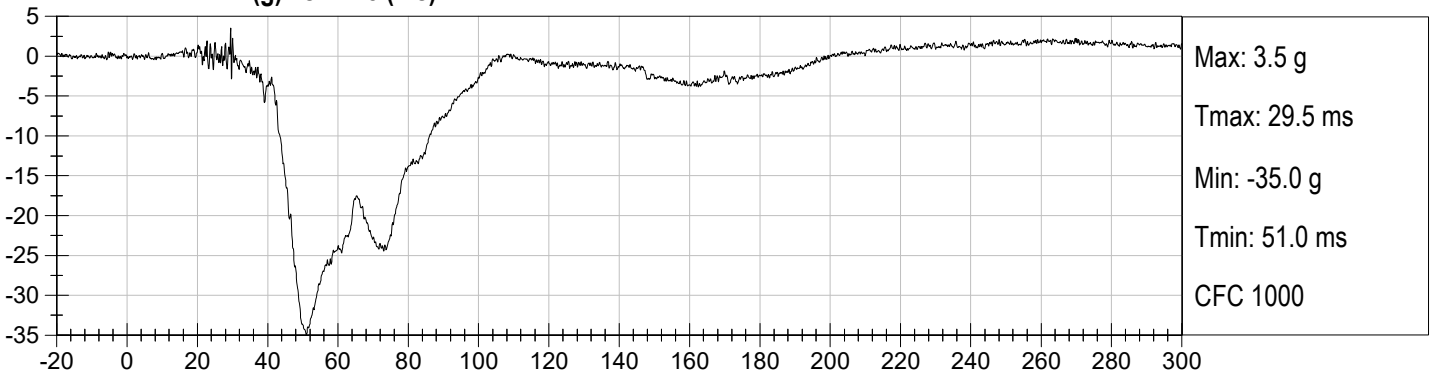
Test Phase	Rotation Time (sec.)	Hold Time (sec.)	Spillage (grams)
0° to 90°	120	308	0.0
90° to 180°	105	310	0.0
180° to 270°	113	310	0.0
270° to 360°	115	305	0.0

APPENDIX A

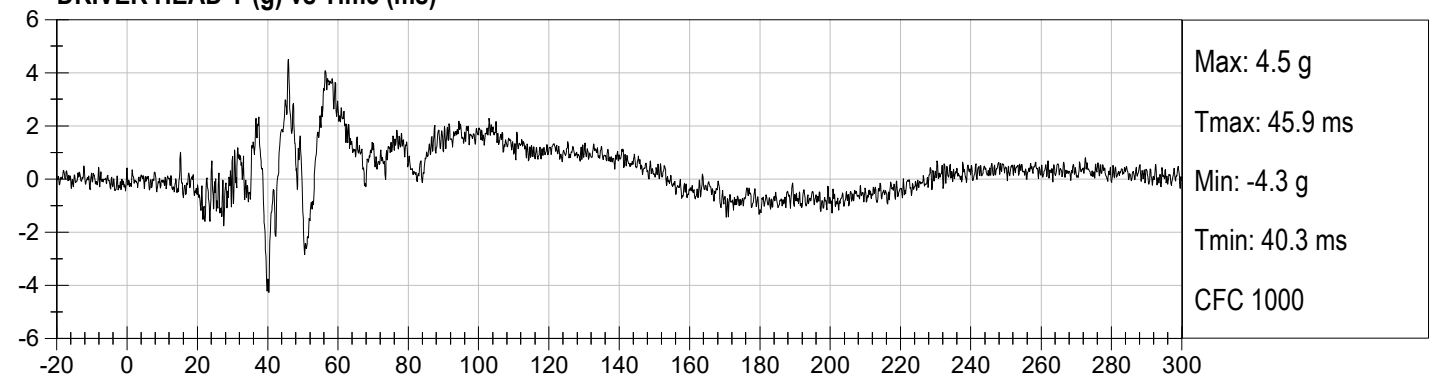
CRASH TEST DATA

TABLE OF DATA PLOTS

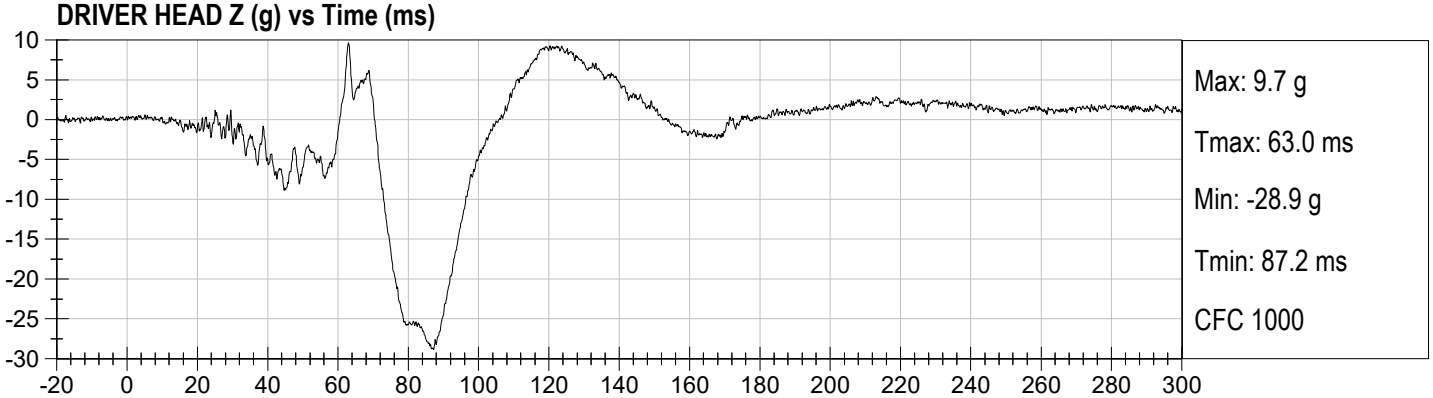
DRIVER HEAD X (g) vs Time (ms)



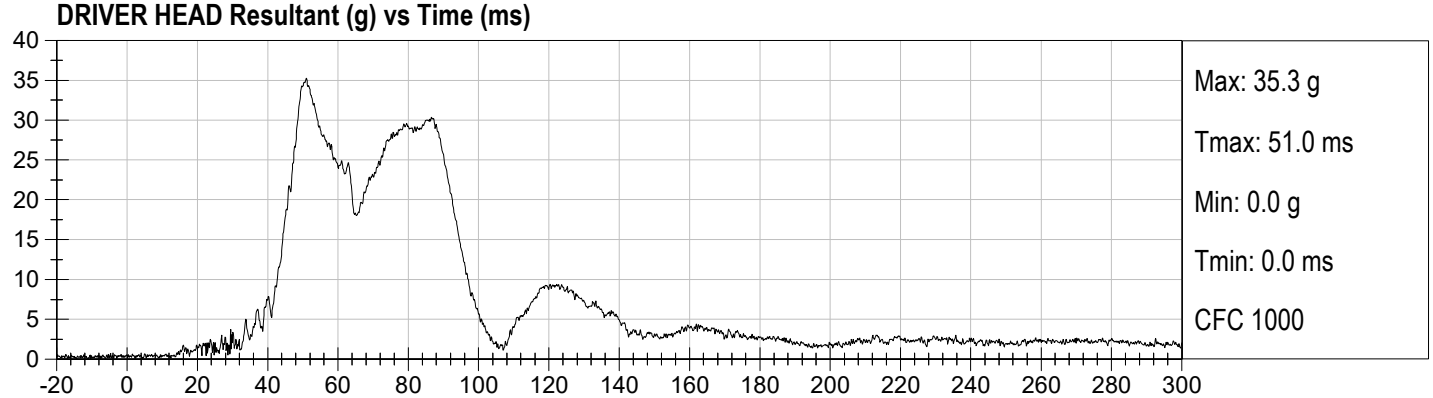
DRIVER HEAD Y (g) vs Time (ms)



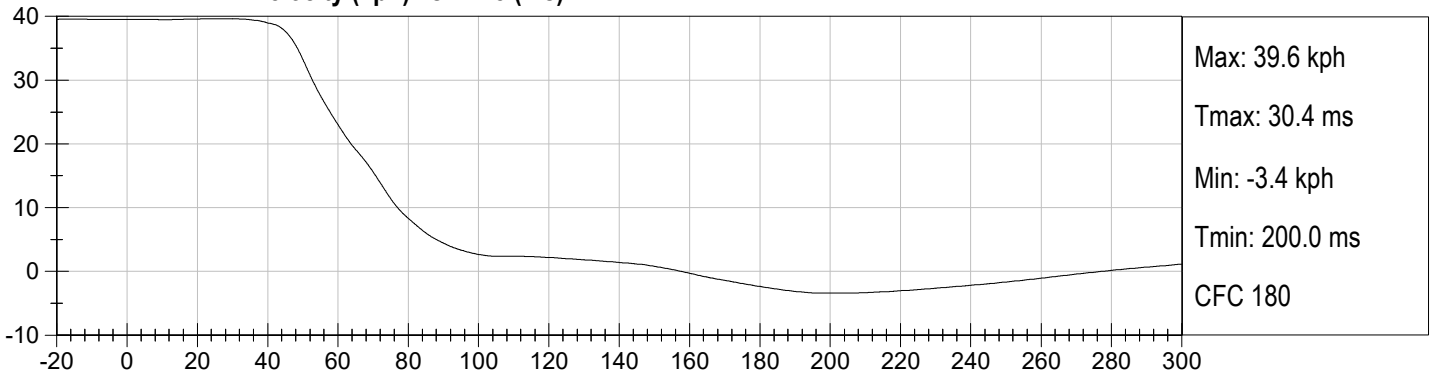
DRIVER HEAD Z (g) vs Time (ms)



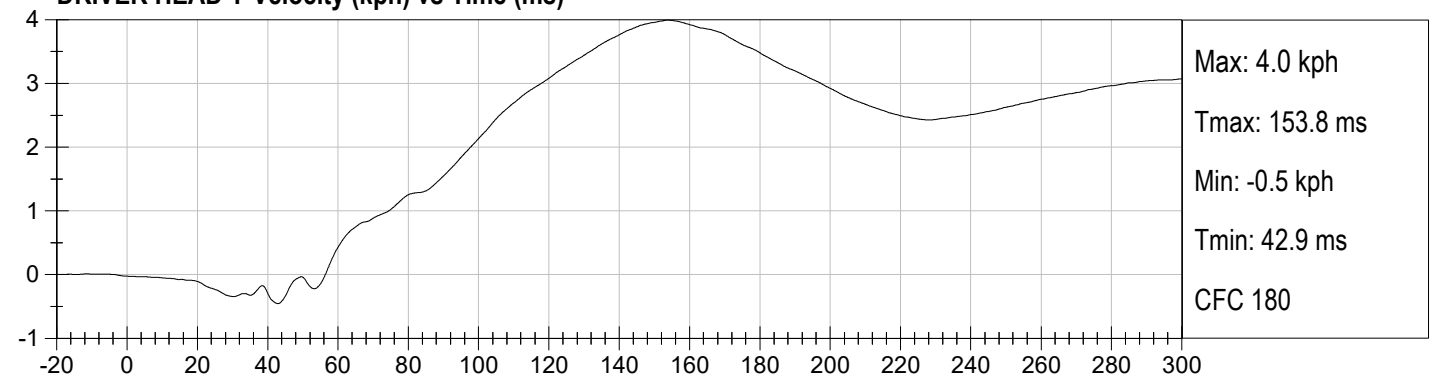
DRIVER HEAD Resultant (g) vs Time (ms)



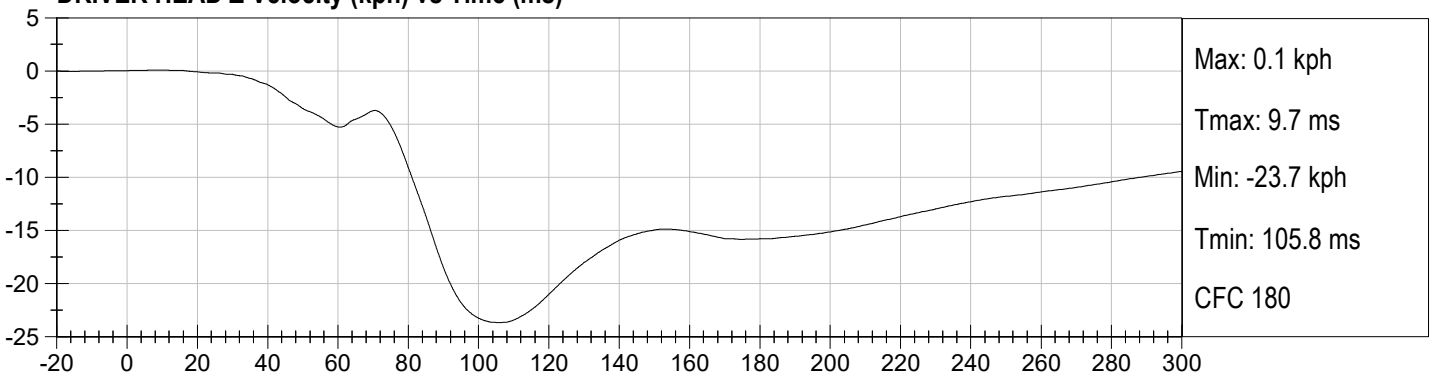
DRIVER HEAD X Velocity (kph) vs Time (ms)



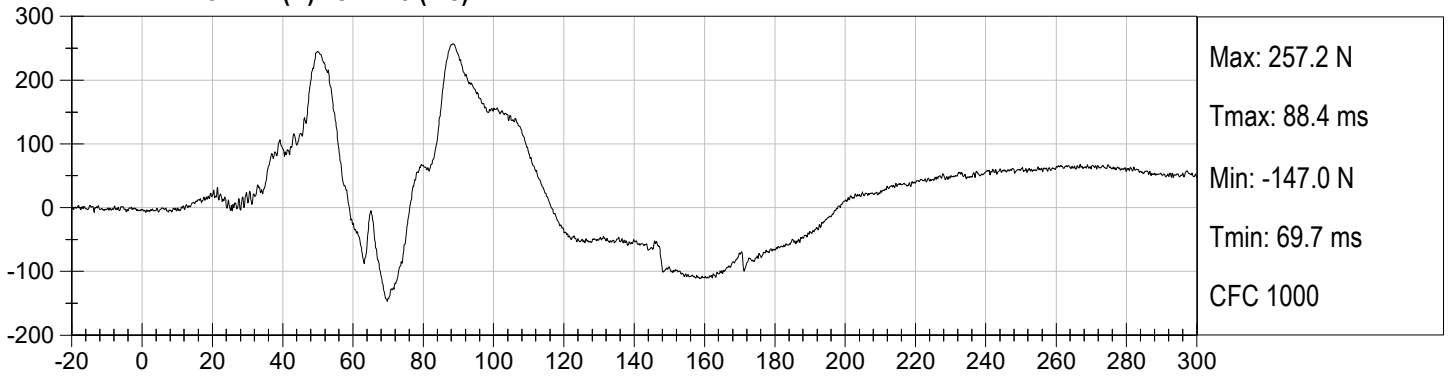
DRIVER HEAD Y Velocity (kph) vs Time (ms)



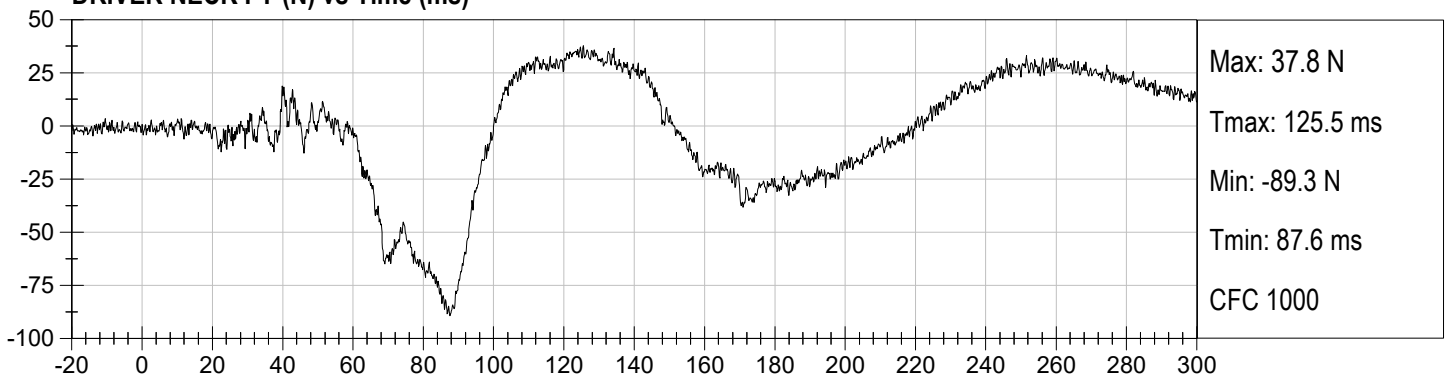
DRIVER HEAD Z Velocity (kph) vs Time (ms)



DRIVER NECK FX (N) vs Time (ms)

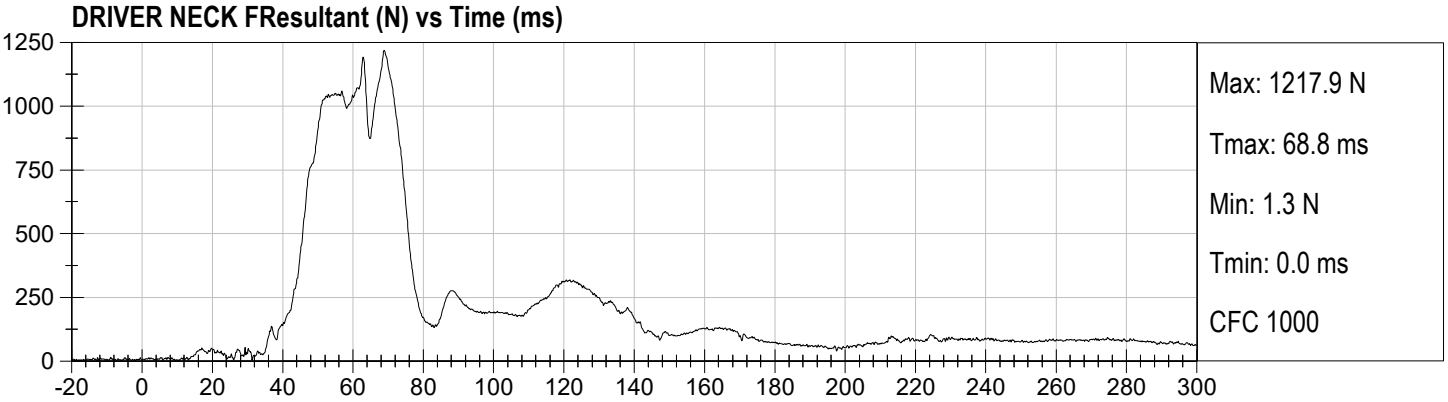


DRIVER NECK FY (N) vs Time (ms)

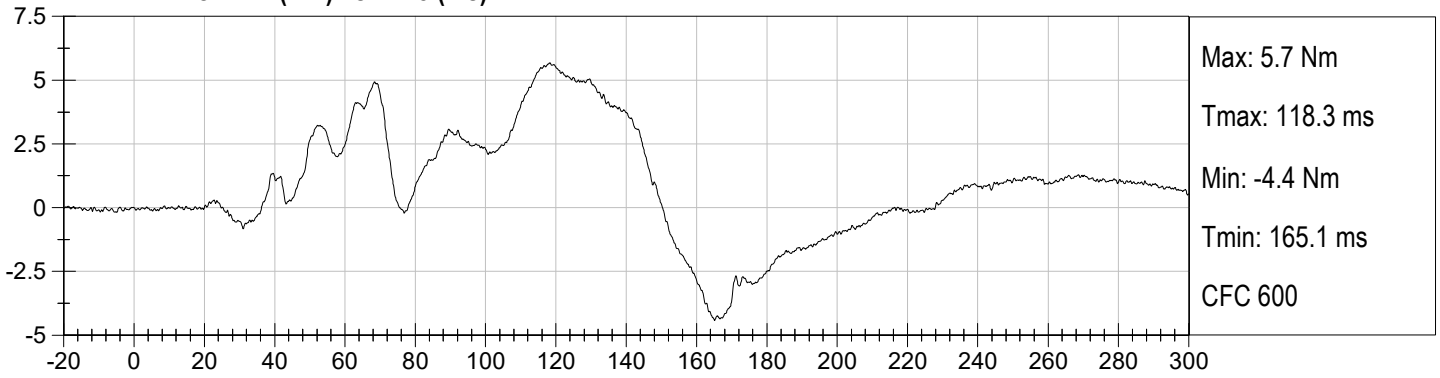


DRIVER NECK FZ (N) vs Time (ms)

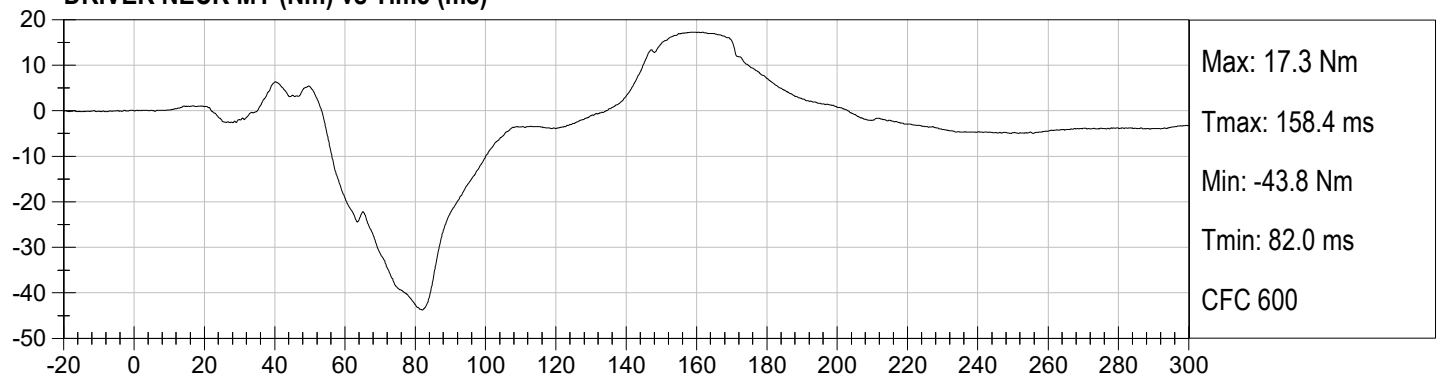
DRIVER NECK FResultant (N) vs Time (ms)



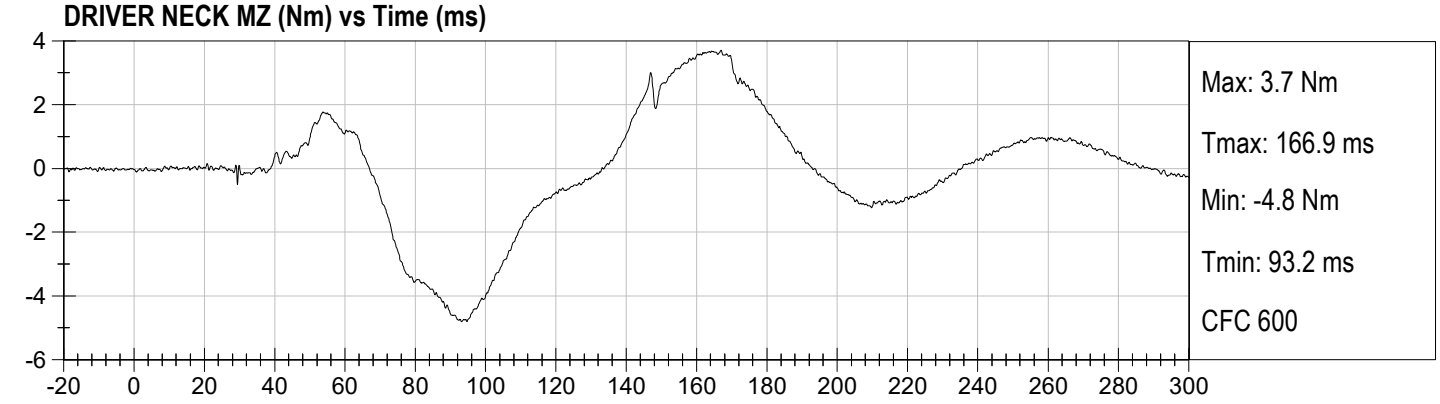
DRIVER NECK MX (Nm) vs Time (ms)



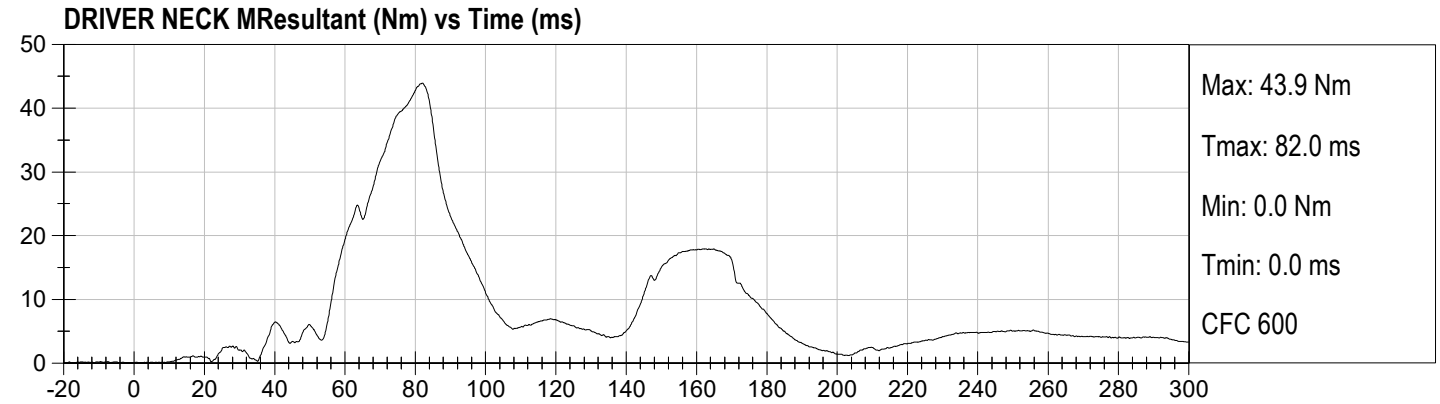
DRIVER NECK MY (Nm) vs Time (ms)



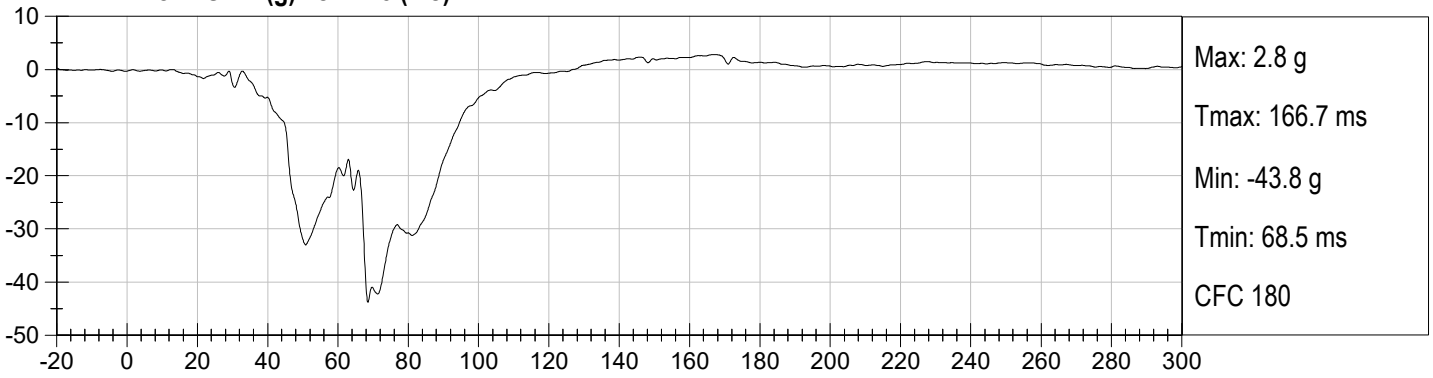
DRIVER NECK MZ (Nm) vs Time (ms)



DRIVER NECK MResultant (Nm) vs Time (ms)

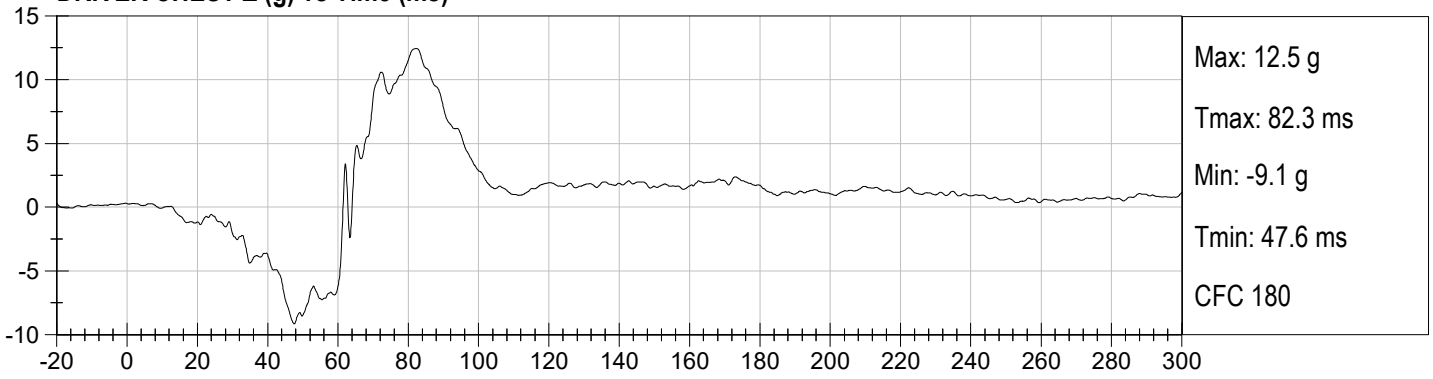


DRIVER CHEST X (g) vs Time (ms)

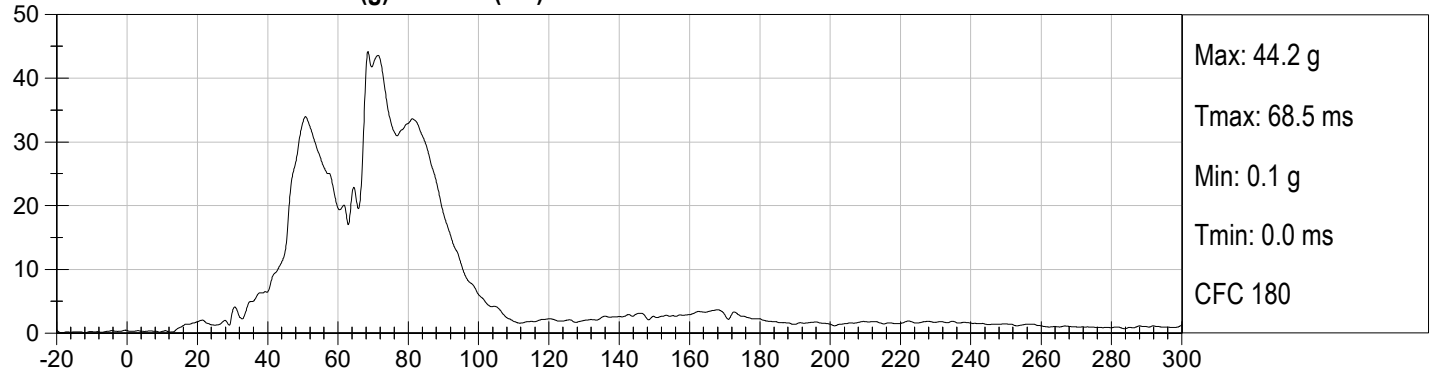


DRIVER CHEST Y (g) vs Time (ms)

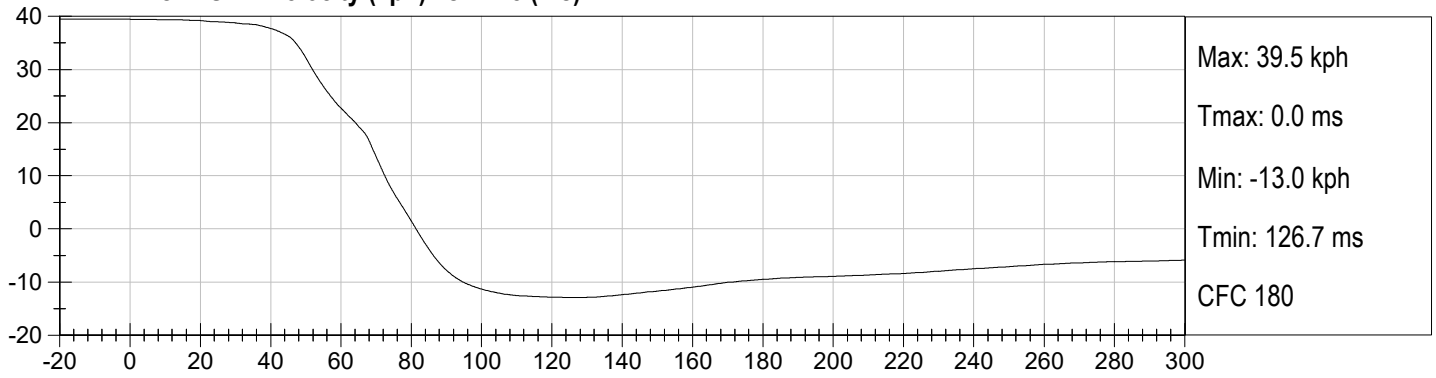
DRIVER CHEST Z (g) vs Time (ms)



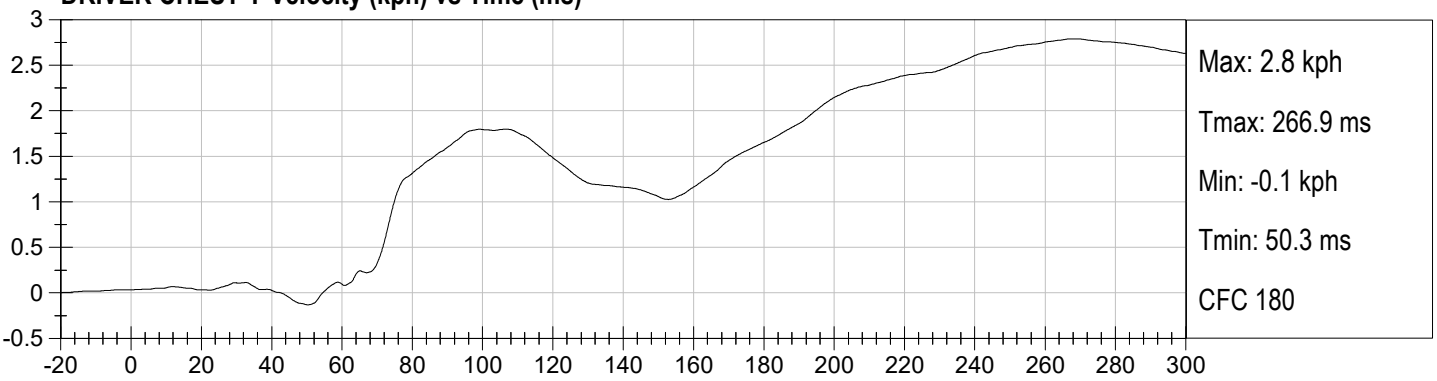
DRIVER CHEST Resultant (g) vs Time (ms)



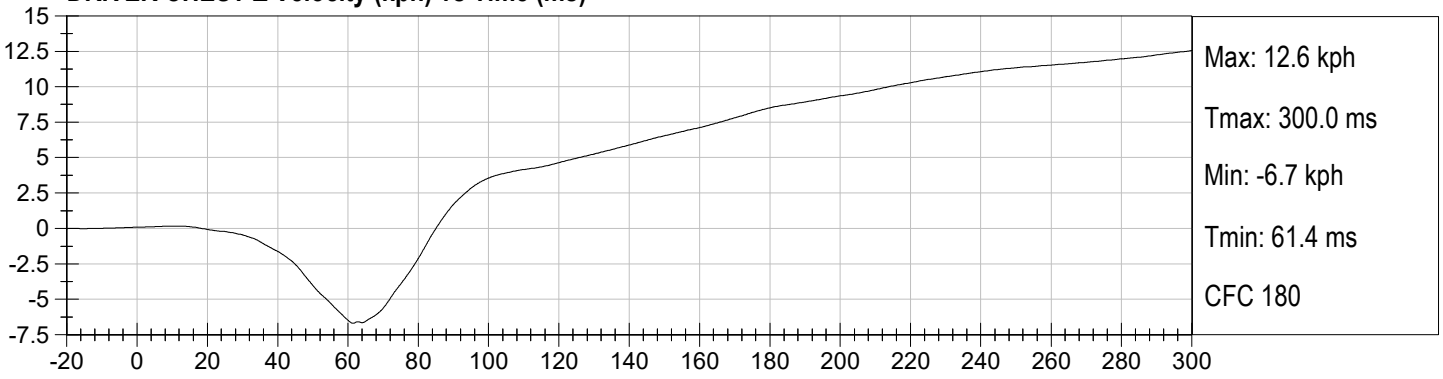
DRIVER CHEST X Velocity (kph) vs Time (ms)



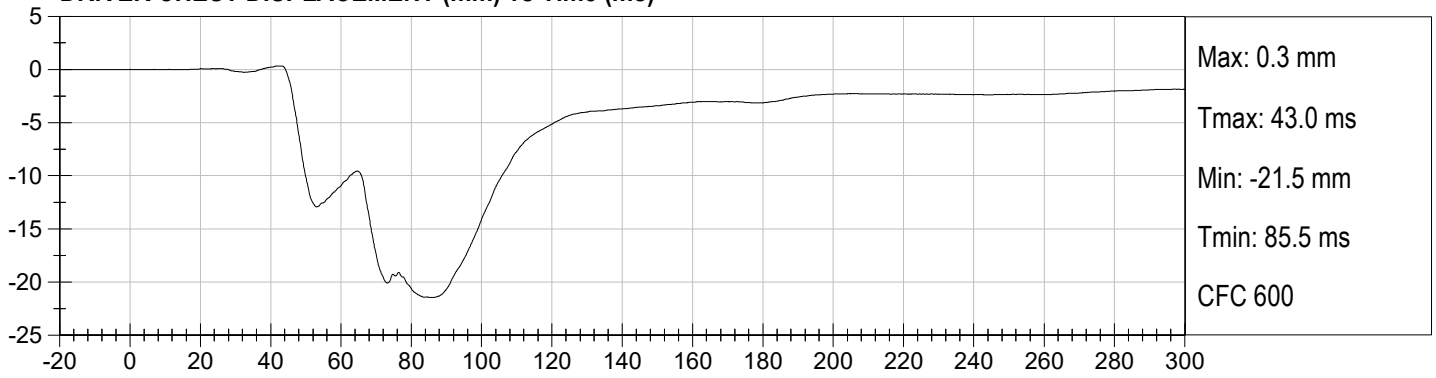
DRIVER CHEST Y Velocity (kph) vs Time (ms)



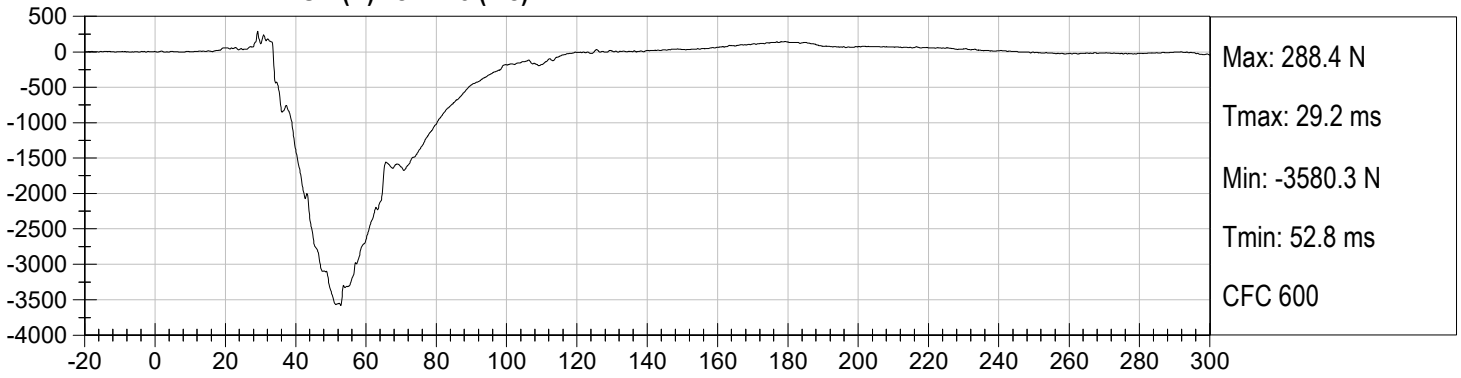
DRIVER CHEST Z Velocity (kph) vs Time (ms)



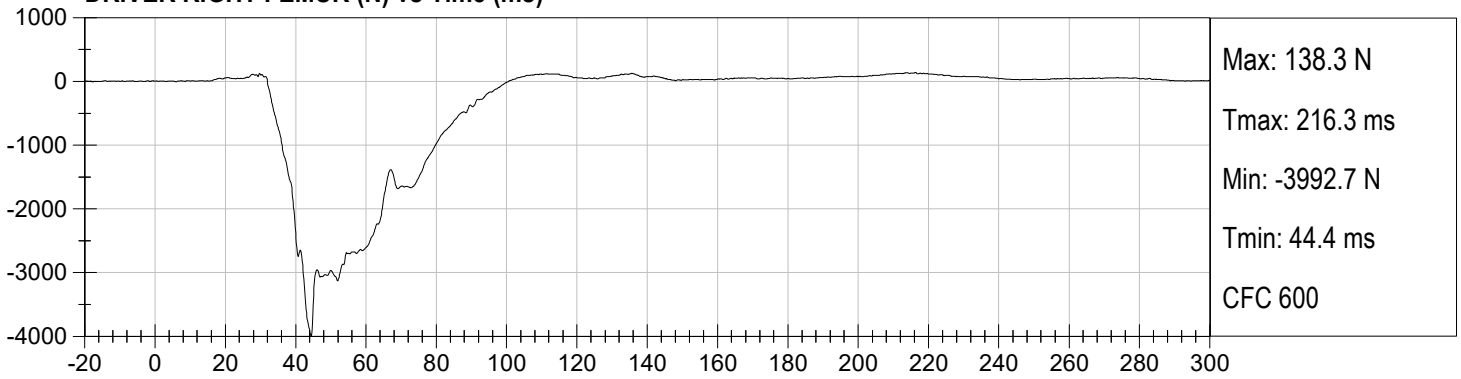
DRIVER CHEST DISPLACEMENT (mm) vs Time (ms)



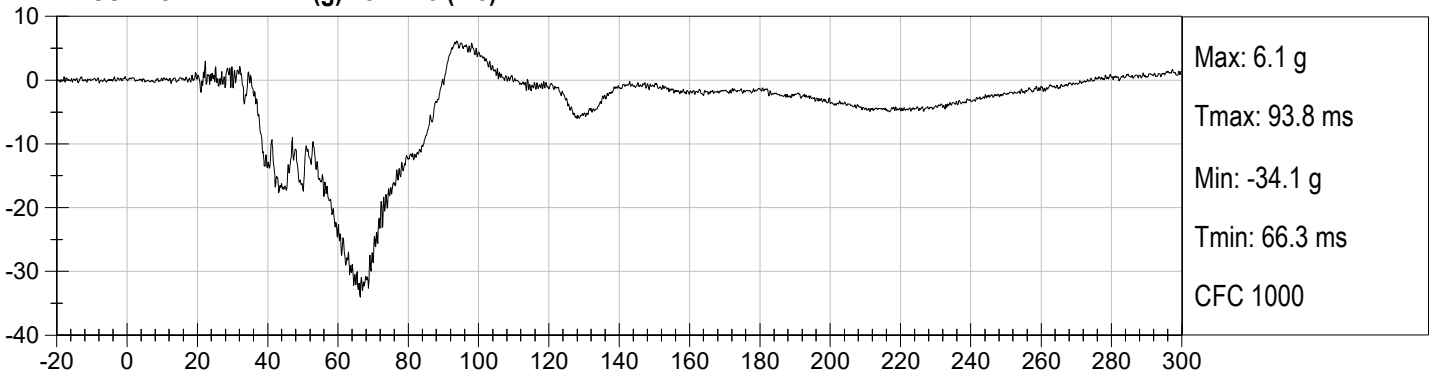
DRIVER LEFT FEMUR (N) vs Time (ms)



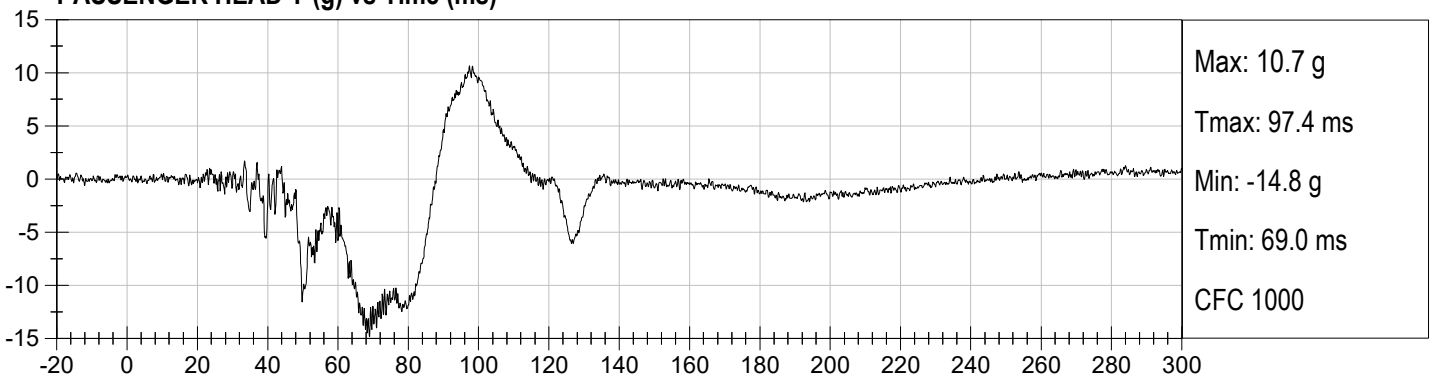
DRIVER RIGHT FEMUR (N) vs Time (ms)



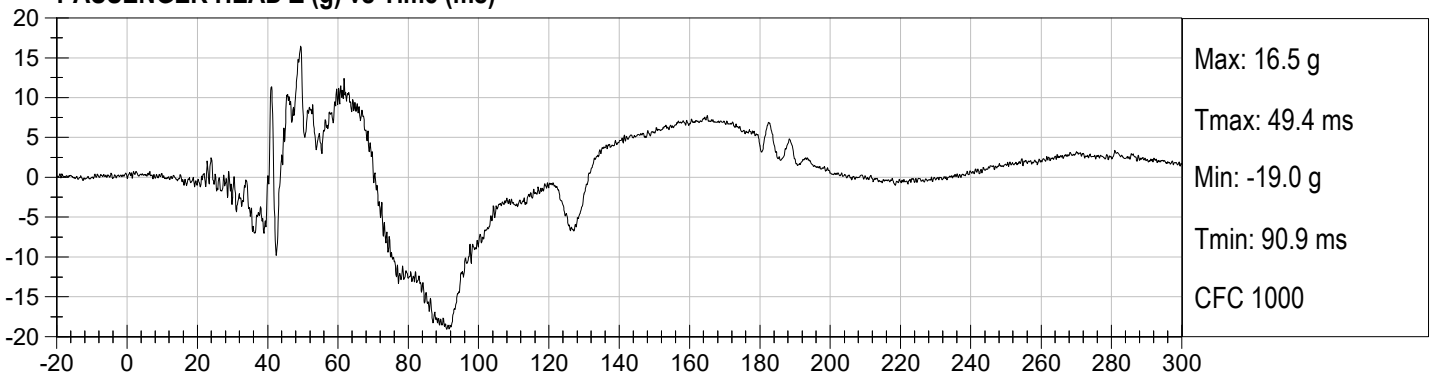
PASSENGER HEAD X (g) vs Time (ms)



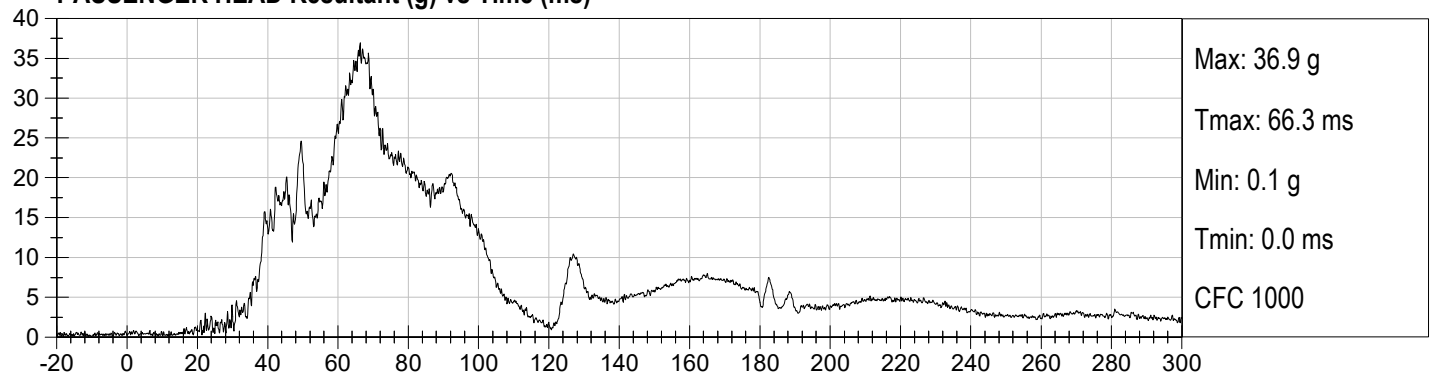
PASSENGER HEAD Y (g) vs Time (ms)



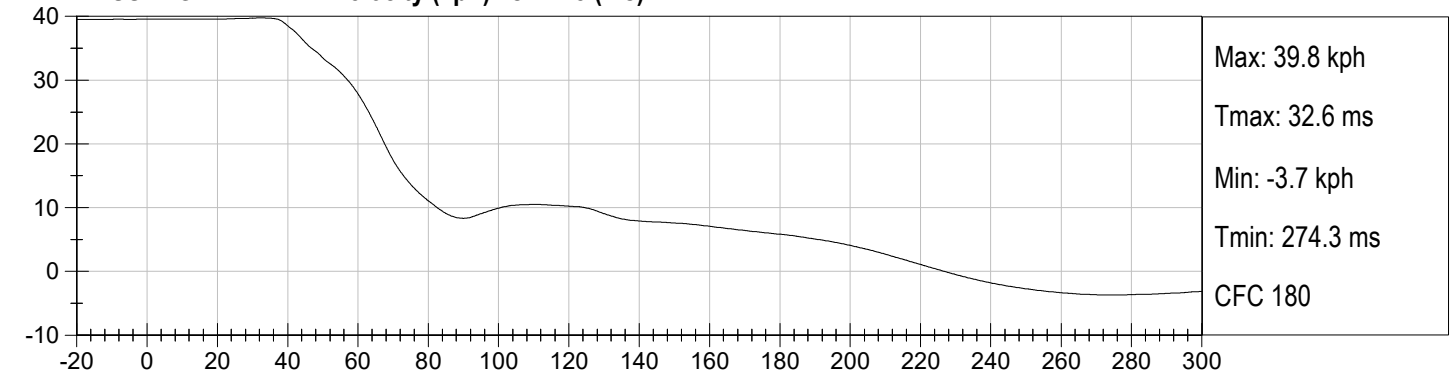
PASSENGER HEAD Z (g) vs Time (ms)



PASSENGER HEAD Resultant (g) vs Time (ms)

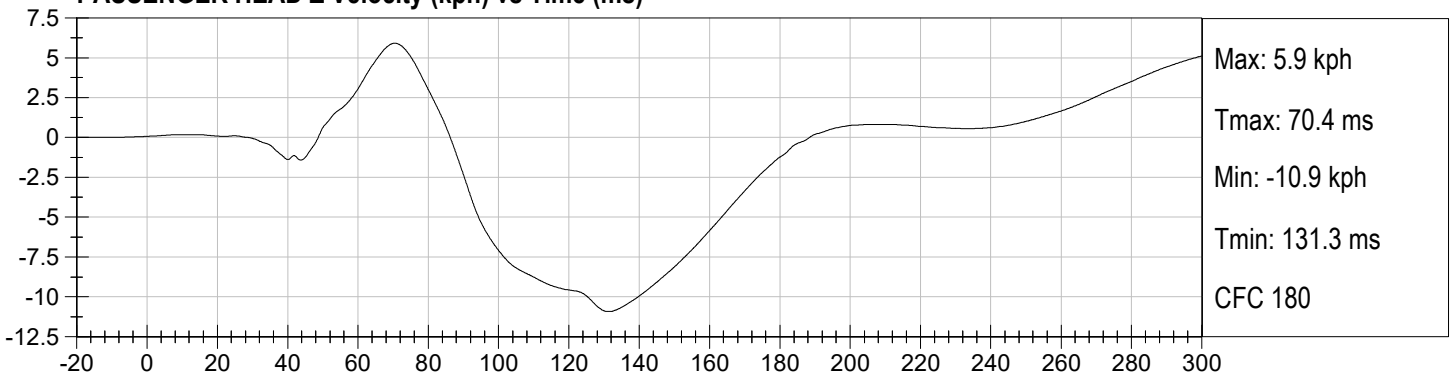


PASSENGER HEAD X Velocity (kph) vs Time (ms)

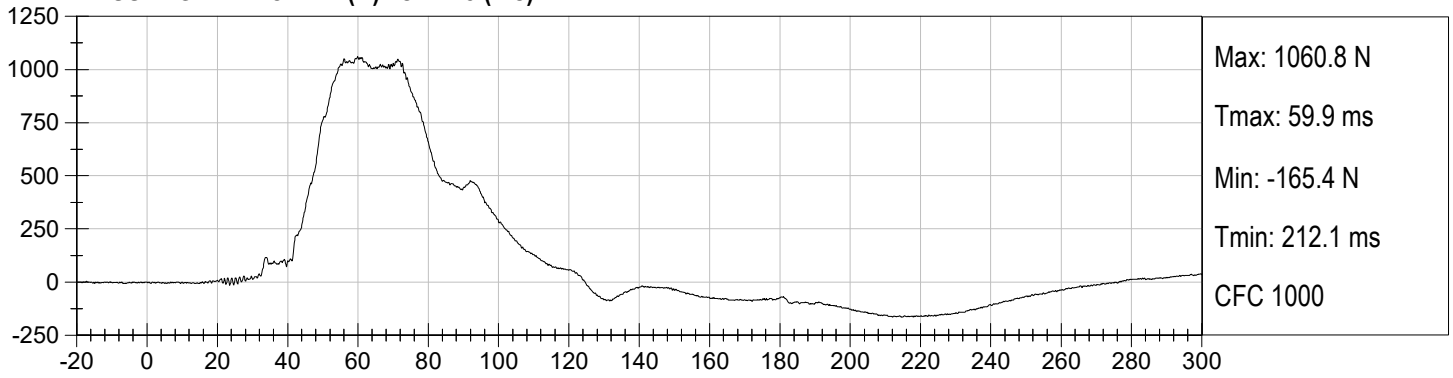


PASSENGER HEAD Y Velocity (kph) vs Time (ms)

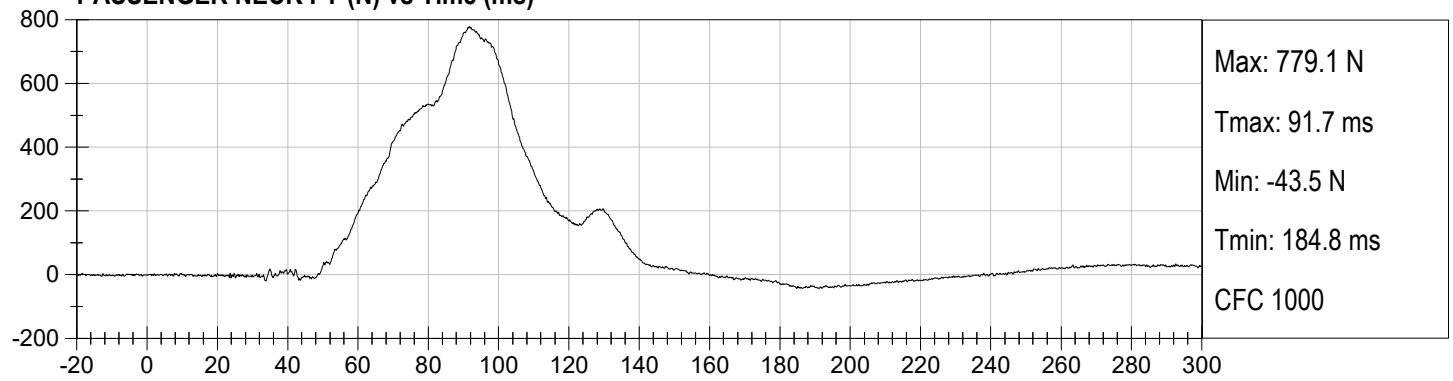
PASSENGER HEAD Z Velocity (kph) vs Time (ms)



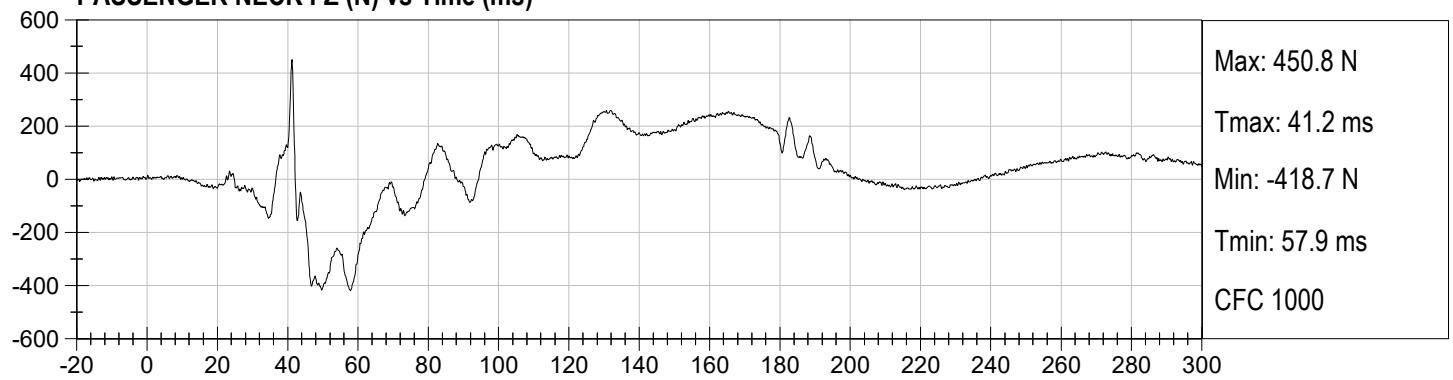
PASSENGER NECK FX (N) vs Time (ms)



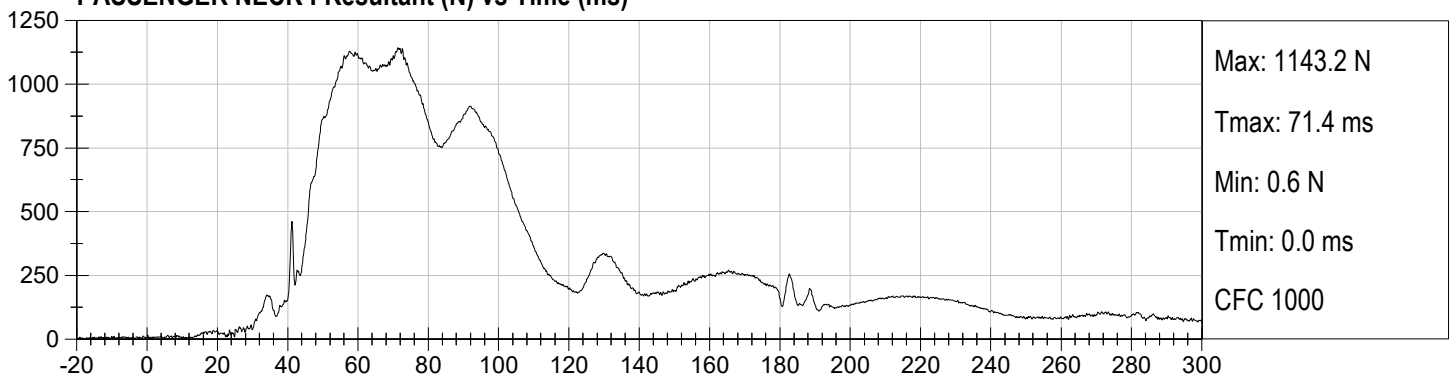
PASSENGER NECK FY (N) vs Time (ms)



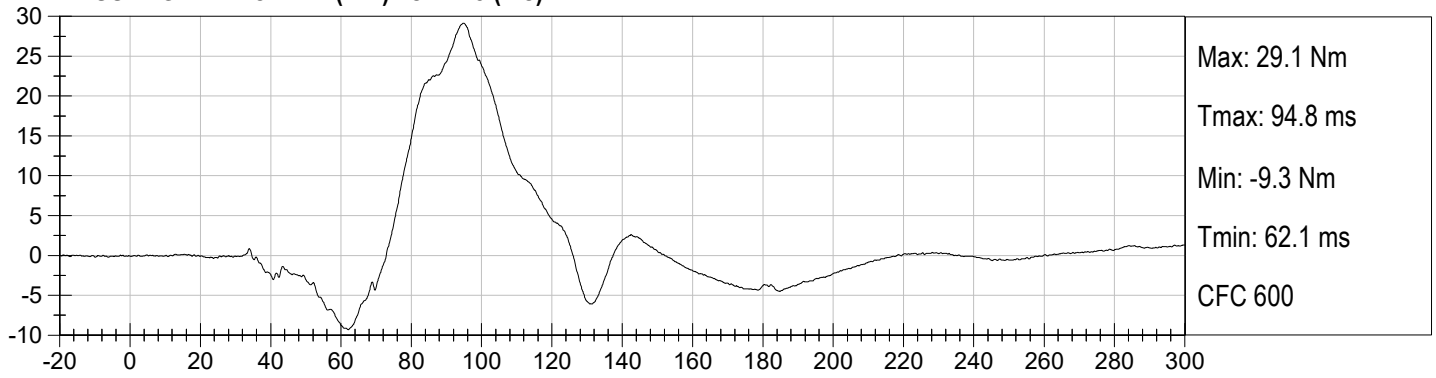
PASSENGER NECK FZ (N) vs Time (ms)



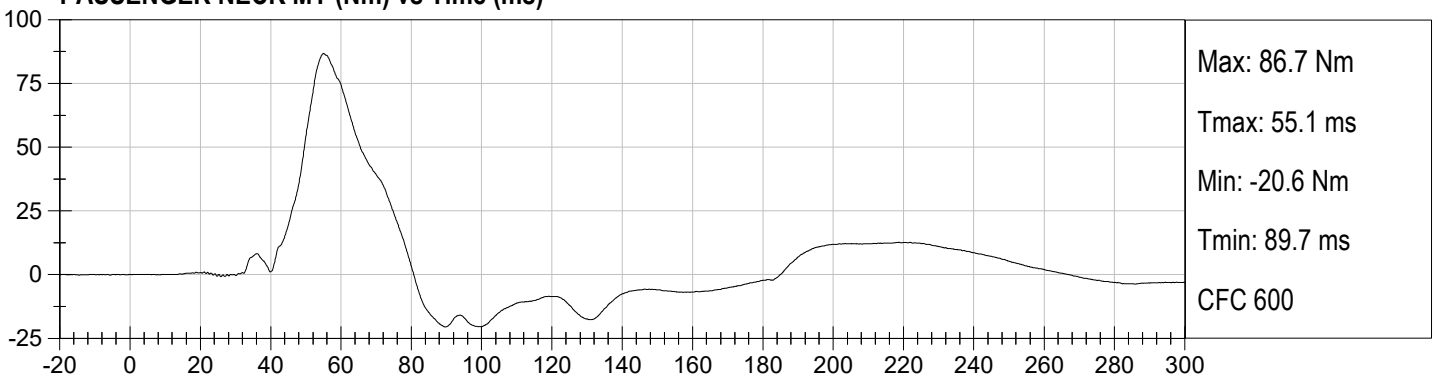
PASSENGER NECK FResultant (N) vs Time (ms)



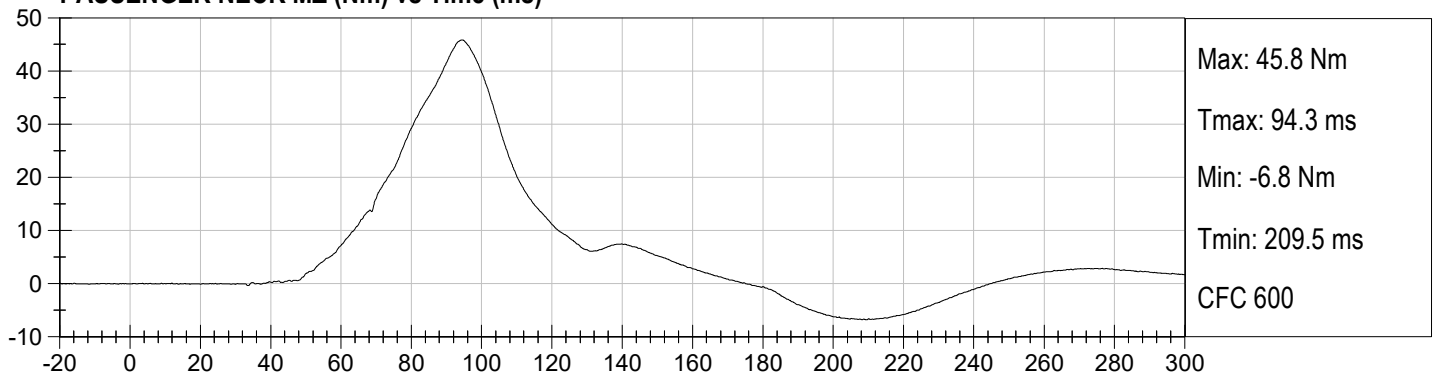
PASSENGER NECK MX (Nm) vs Time (ms)



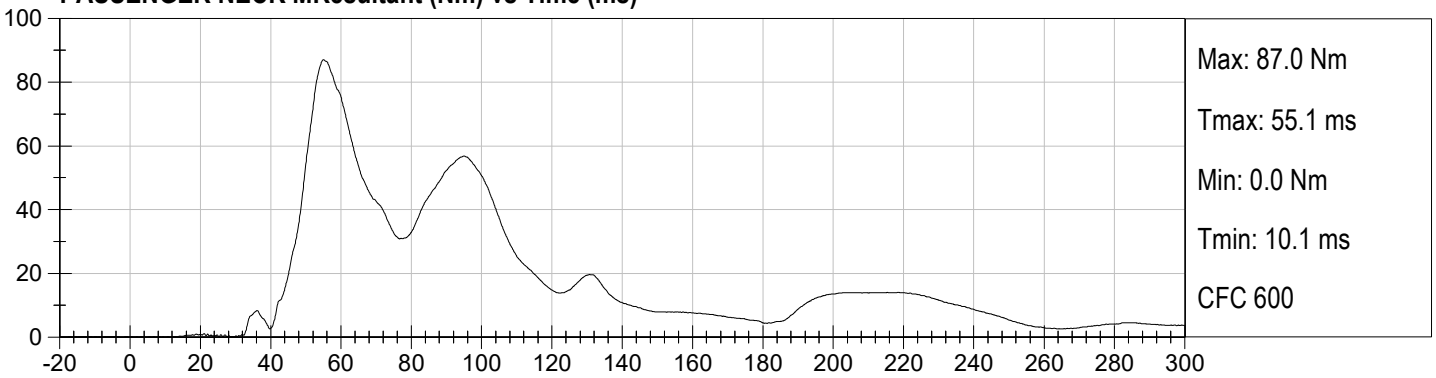
PASSENGER NECK MY (Nm) vs Time (ms)



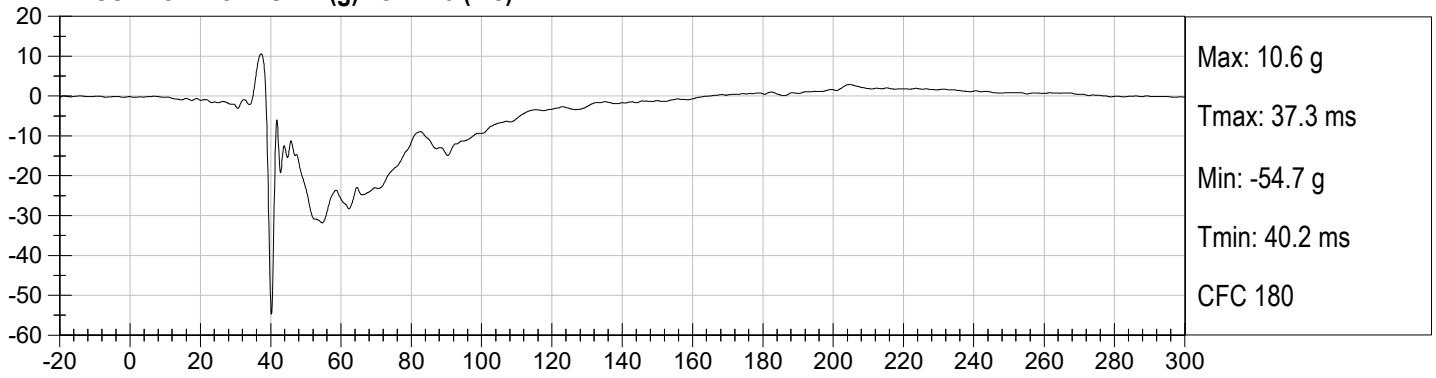
PASSENGER NECK MZ (Nm) vs Time (ms)



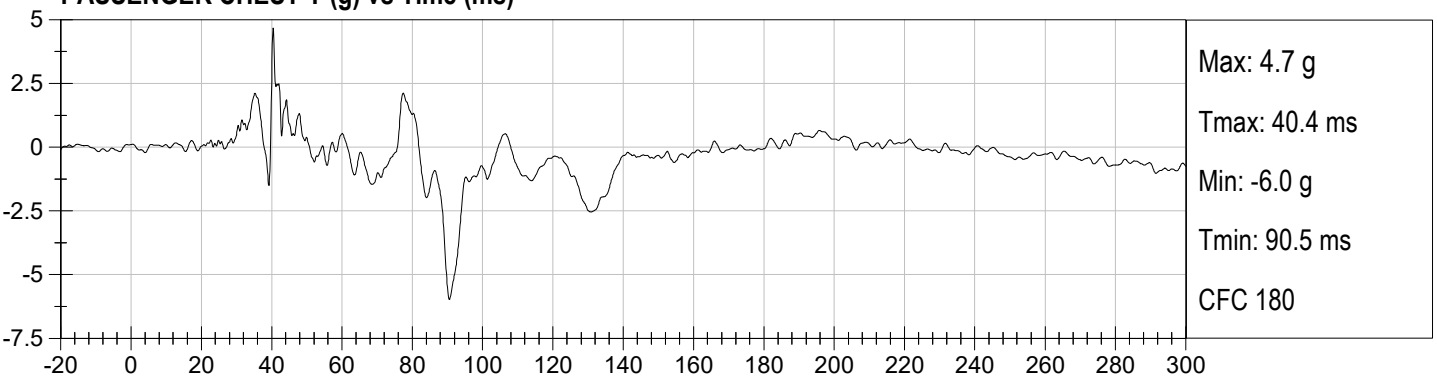
PASSENGER NECK MResultant (Nm) vs Time (ms)



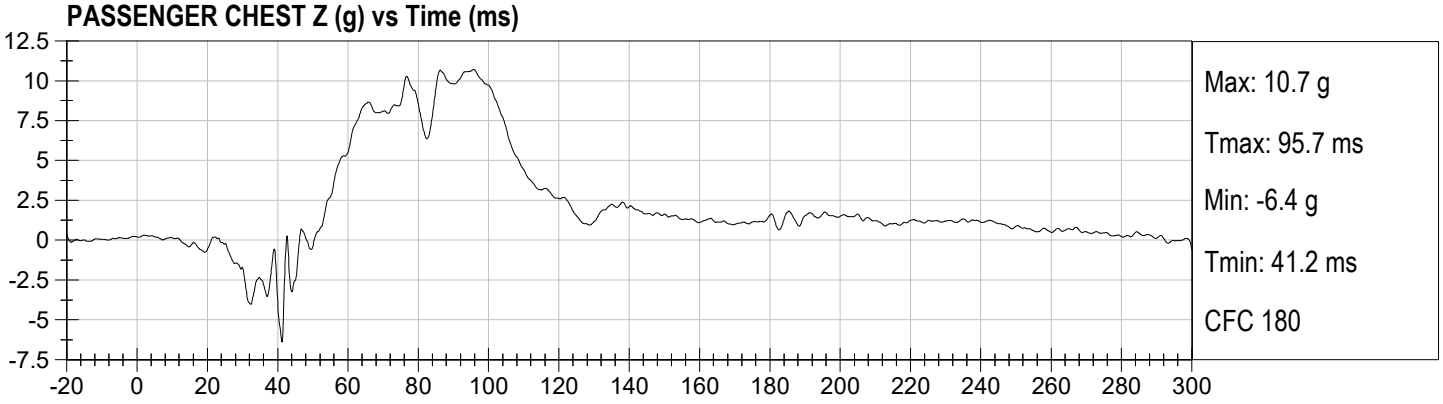
PASSENGER CHEST X (g) vs Time (ms)



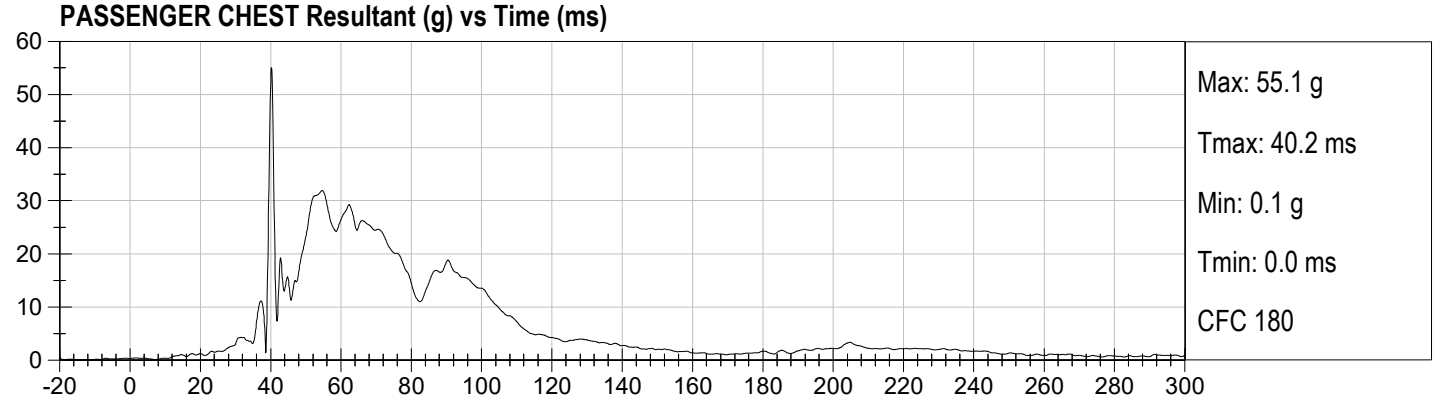
PASSENGER CHEST Y (g) vs Time (ms)



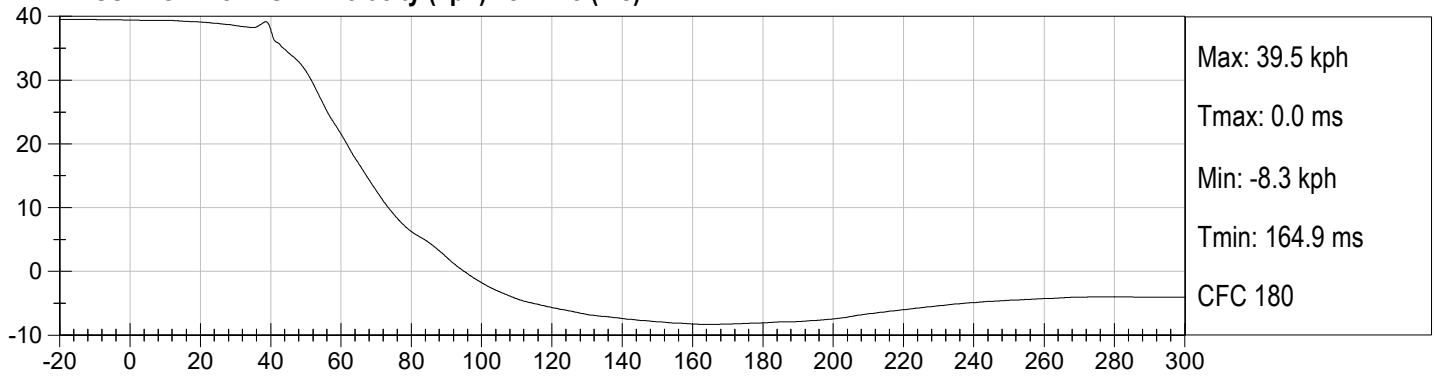
PASSENGER CHEST Z (g) vs Time (ms)



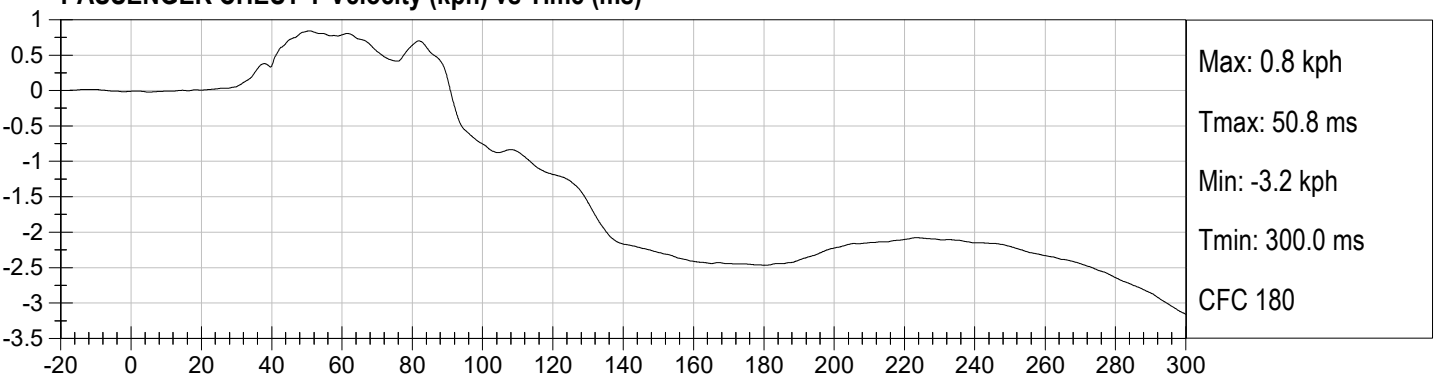
PASSENGER CHEST Resultant (g) vs Time (ms)



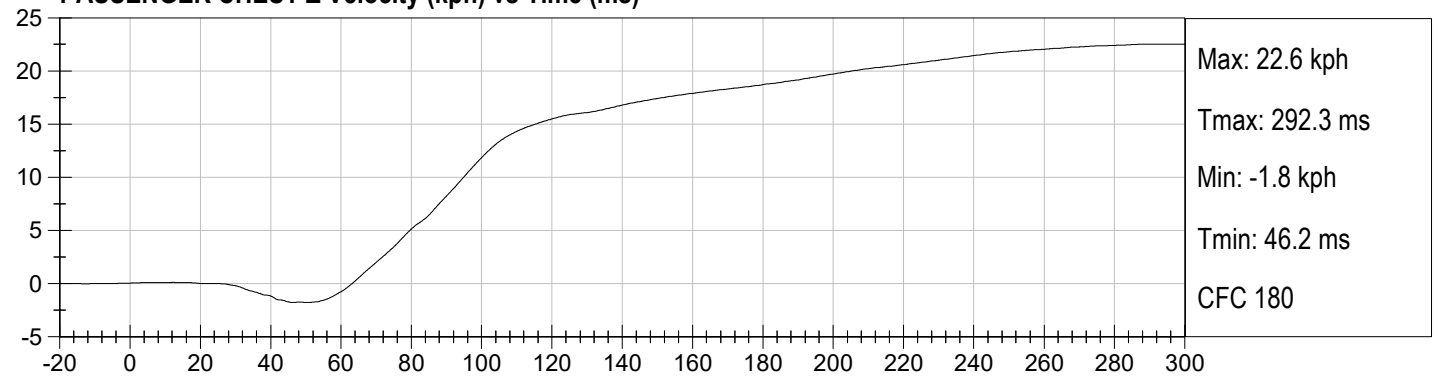
PASSENGER CHEST X Velocity (kph) vs Time (ms)



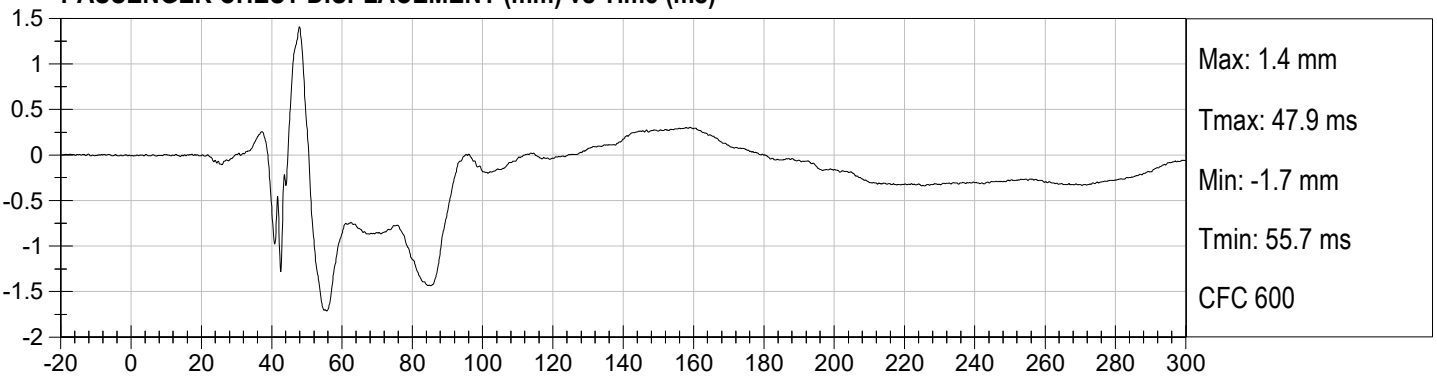
PASSENGER CHEST Y Velocity (kph) vs Time (ms)



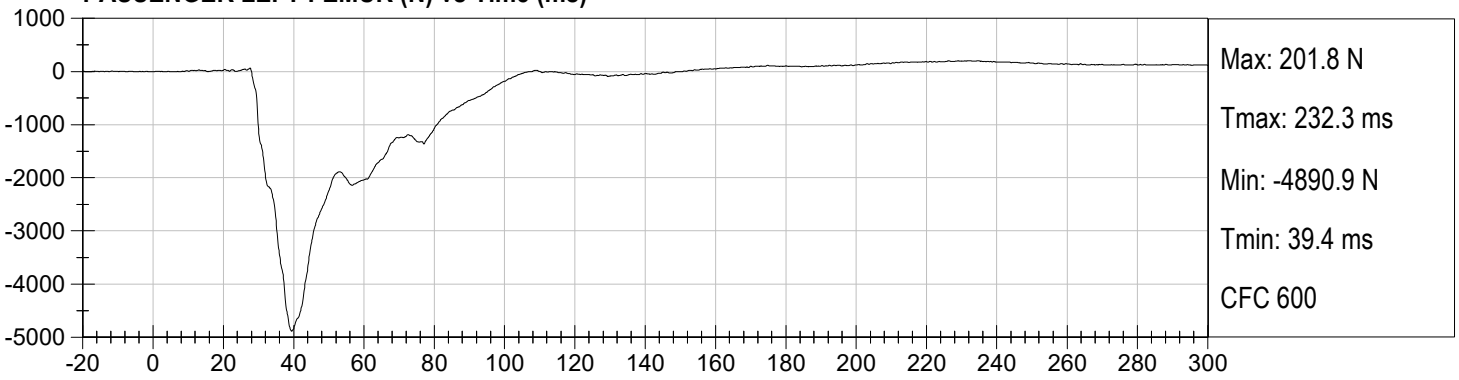
PASSENGER CHEST Z Velocity (kph) vs Time (ms)



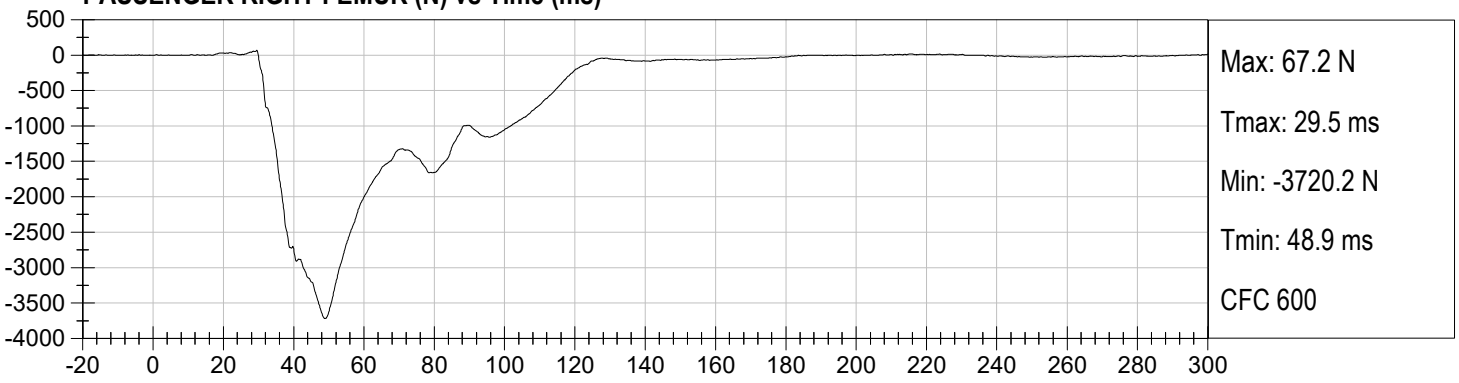
PASSENGER CHEST DISPLACEMENT (mm) vs Time (ms)



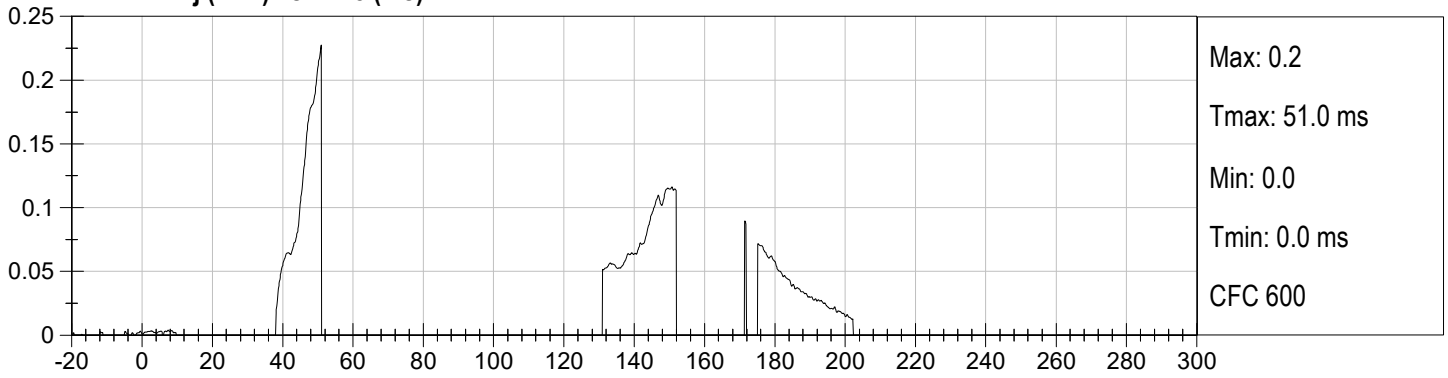
PASSENGER LEFT FEMUR (N) vs Time (ms)



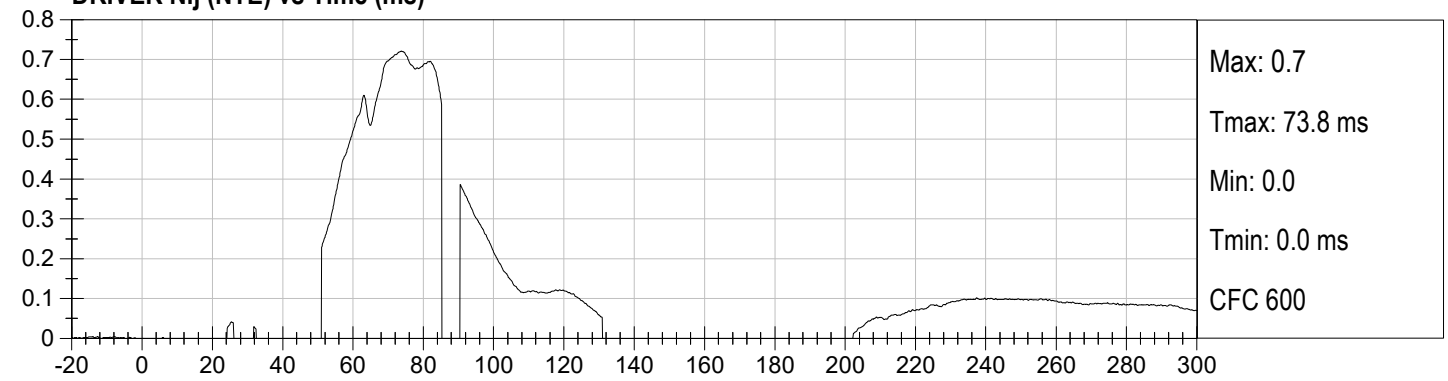
PASSENGER RIGHT FEMUR (N) vs Time (ms)



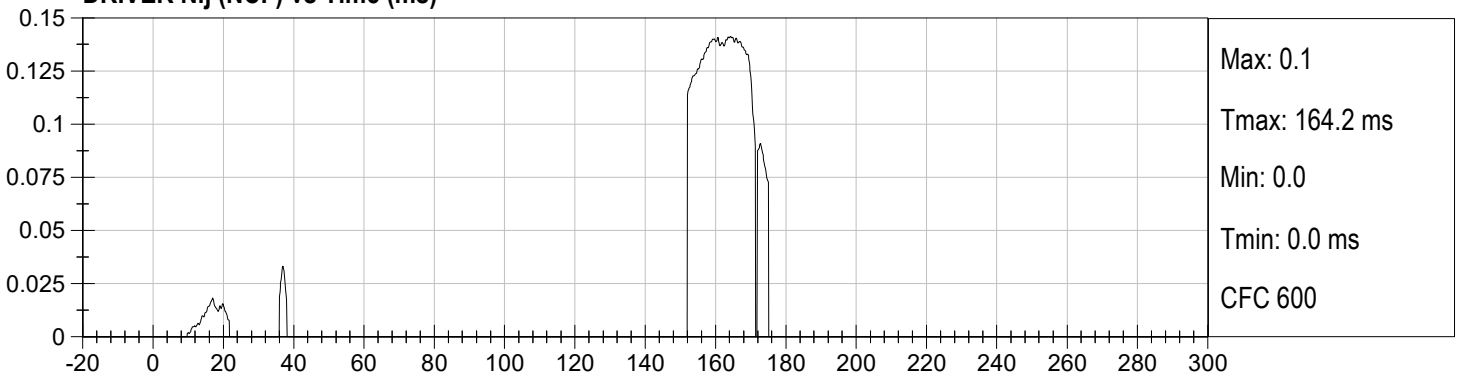
DRIVER Nij (NTF) vs Time (ms)



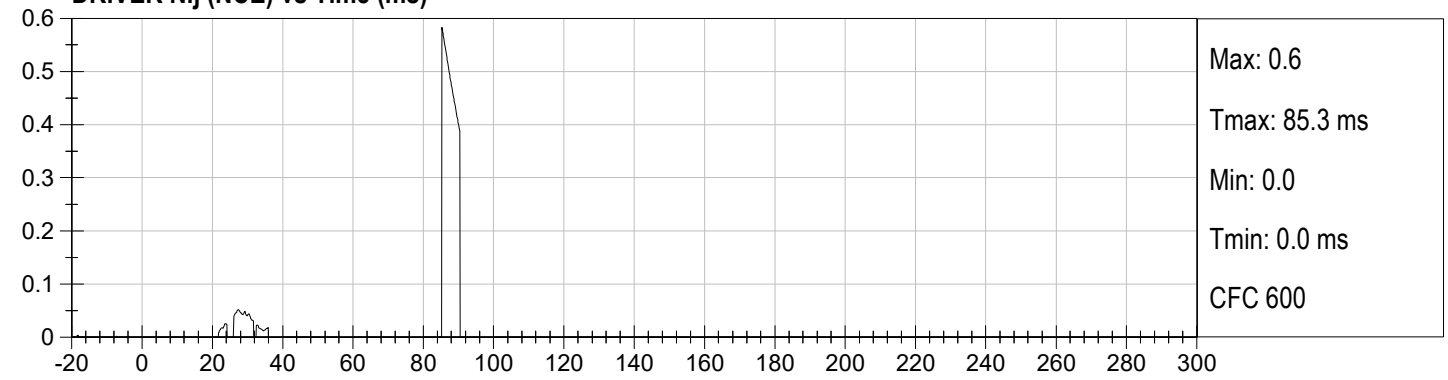
DRIVER Nij (NTE) vs Time (ms)



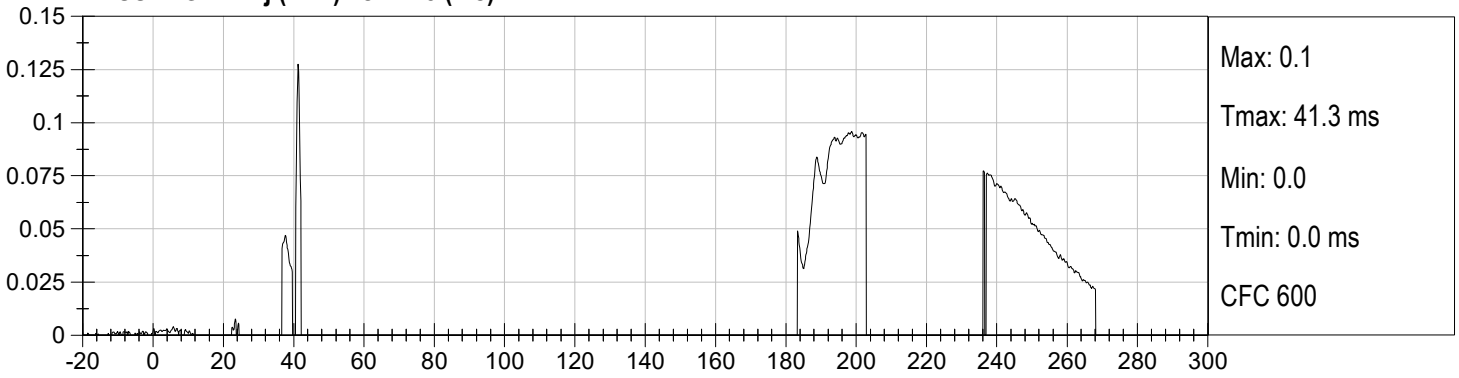
DRIVER Nij (NCF) vs Time (ms)



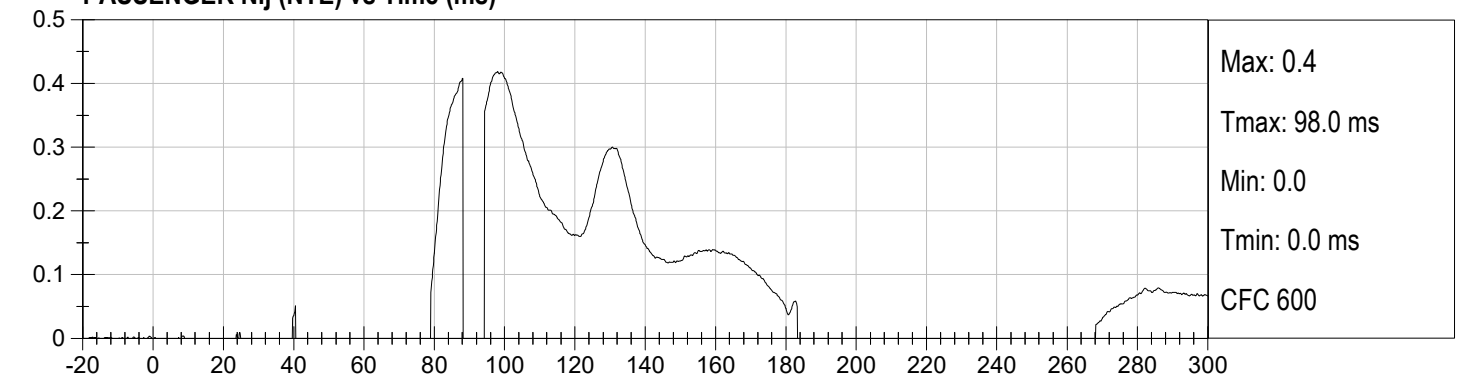
DRIVER Nij (NCE) vs Time (ms)



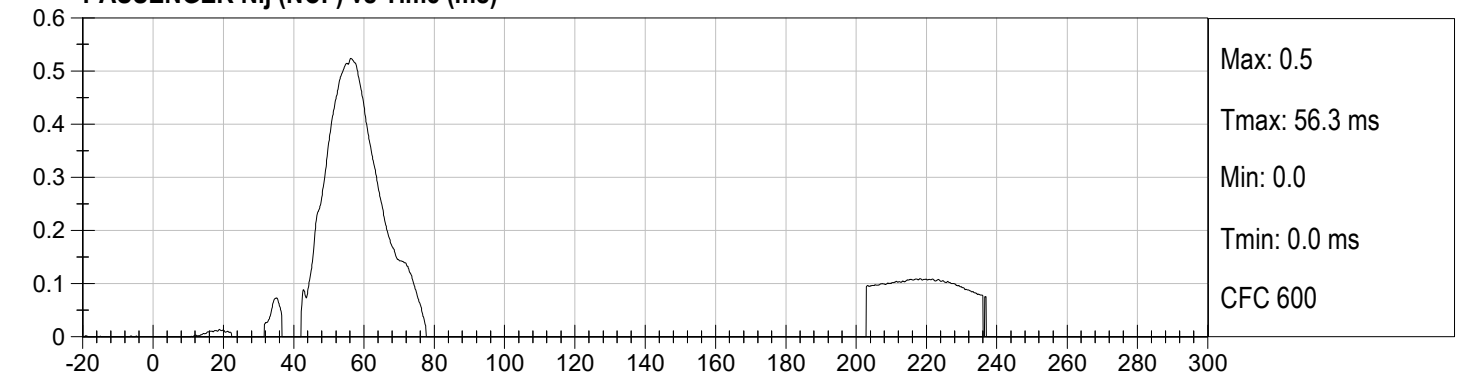
PASSENGER Nij (NTF) vs Time (ms)



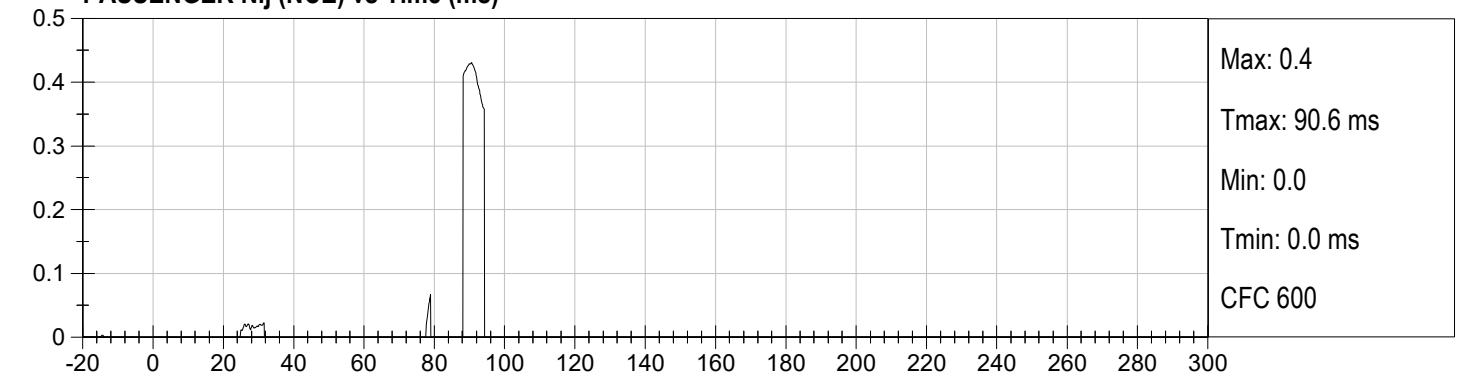
PASSENGER Nij (NTE) vs Time (ms)



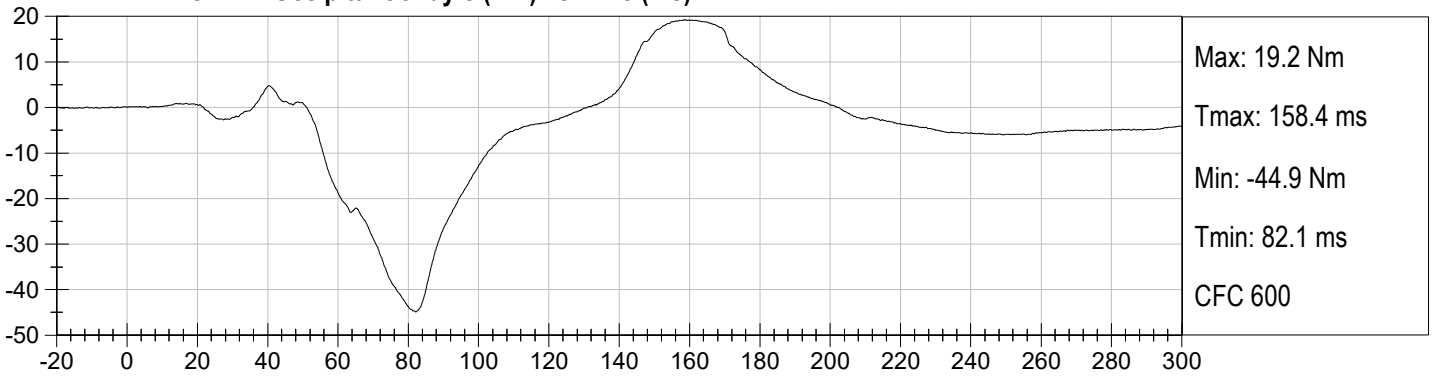
PASSENGER Nij (NCF) vs Time (ms)



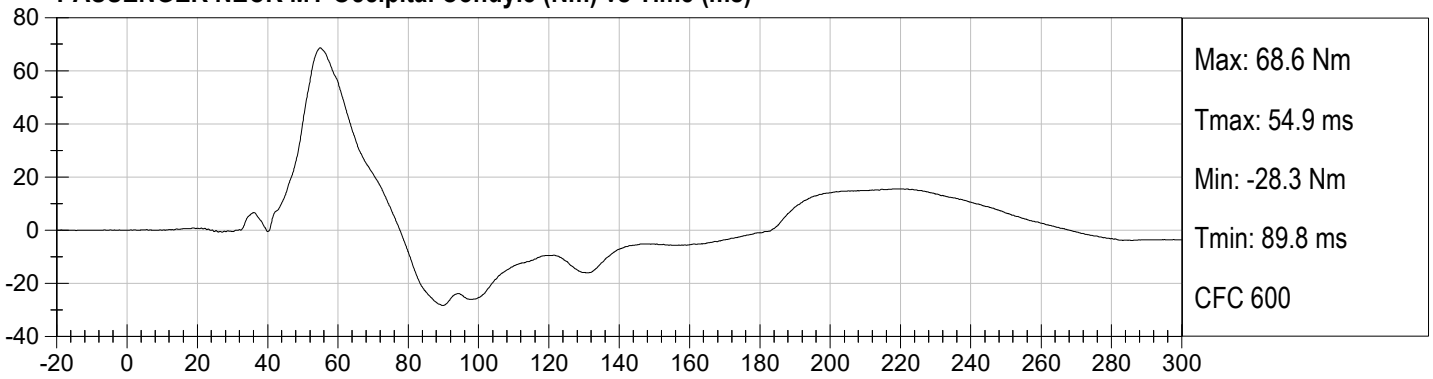
PASSENGER Nij (NCE) vs Time (ms)



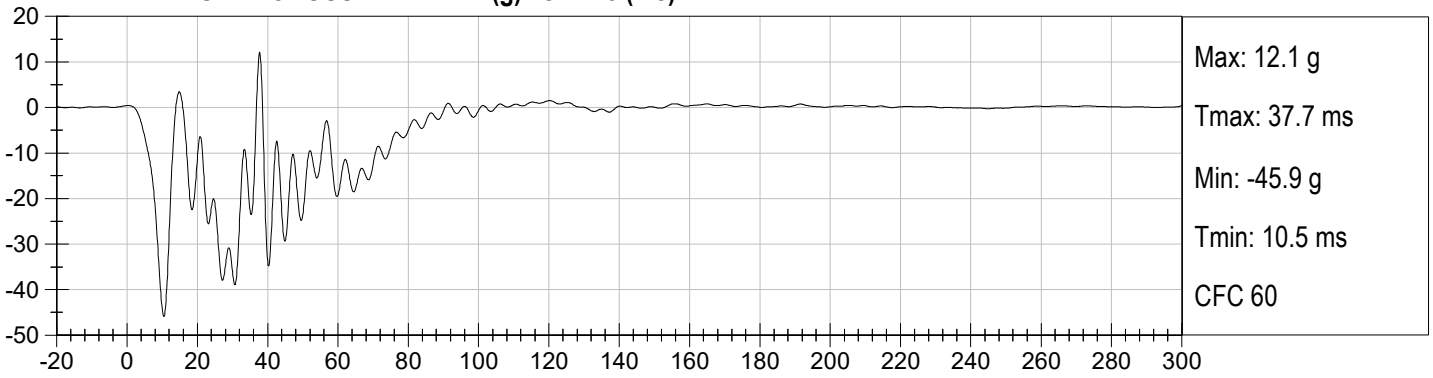
DRIVER NECK MY Occipital Condyle (Nm) vs Time (ms)



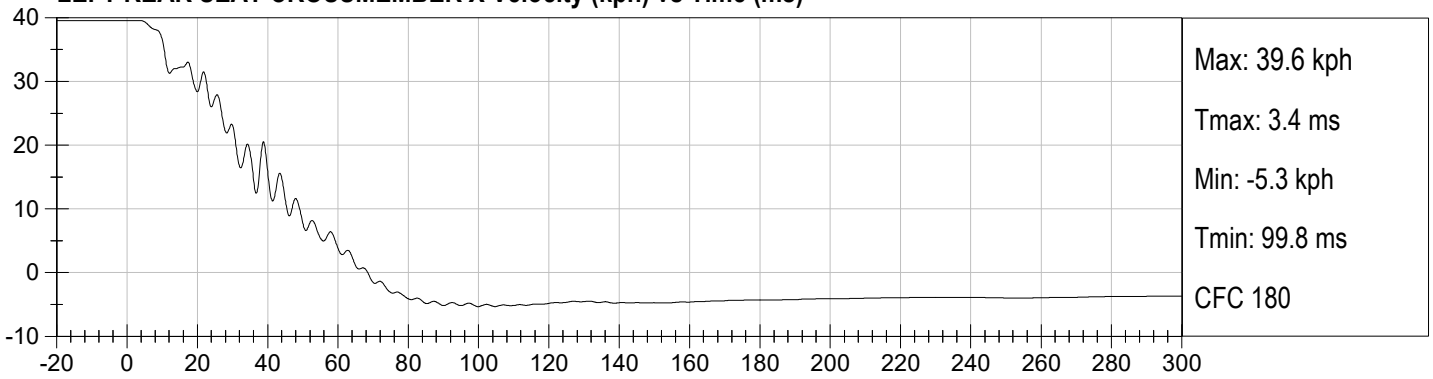
PASSENGER NECK MY Occipital Condyle (Nm) vs Time (ms)



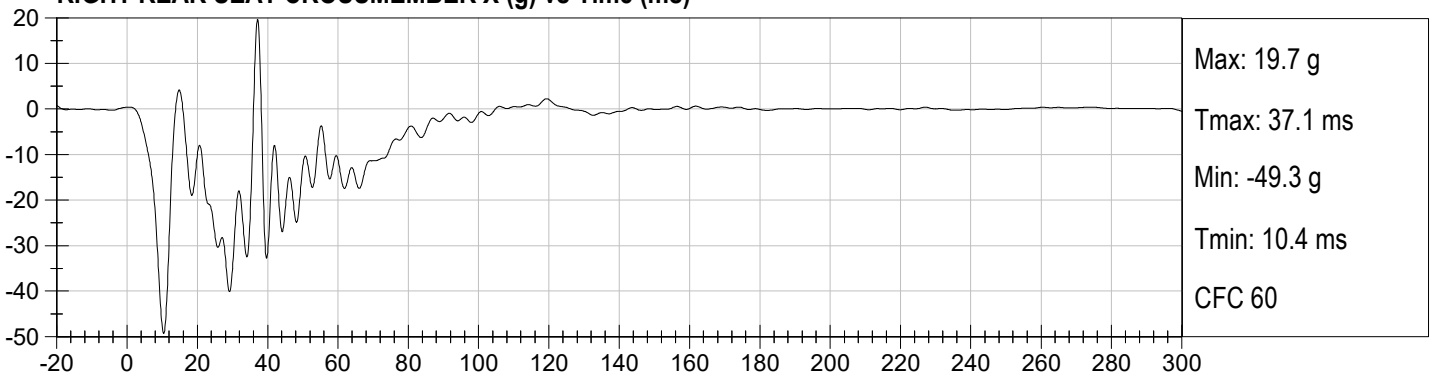
LEFT REAR SEAT CROSSMEMBER X (g) vs Time (ms)



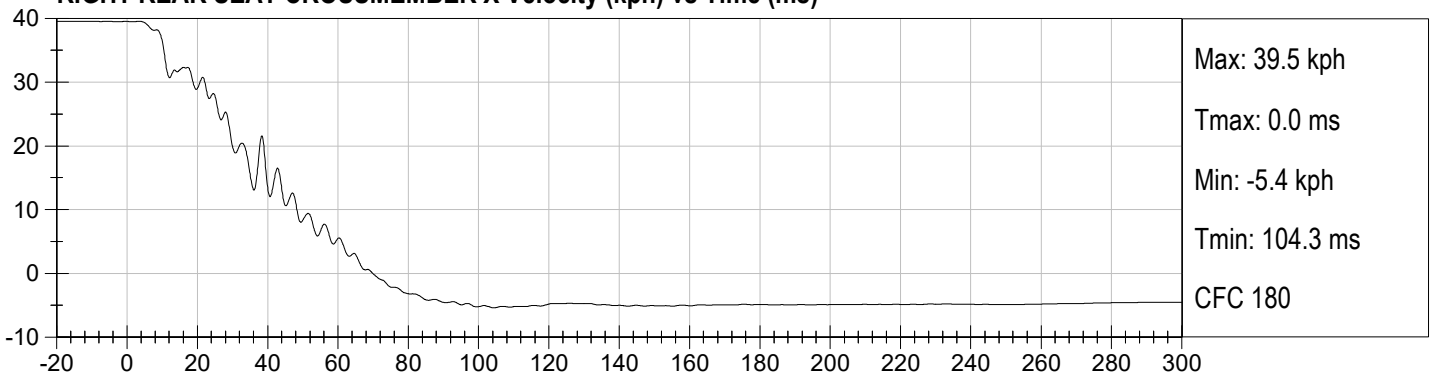
LEFT REAR SEAT CROSSMEMBER X Velocity (kph) vs Time (ms)



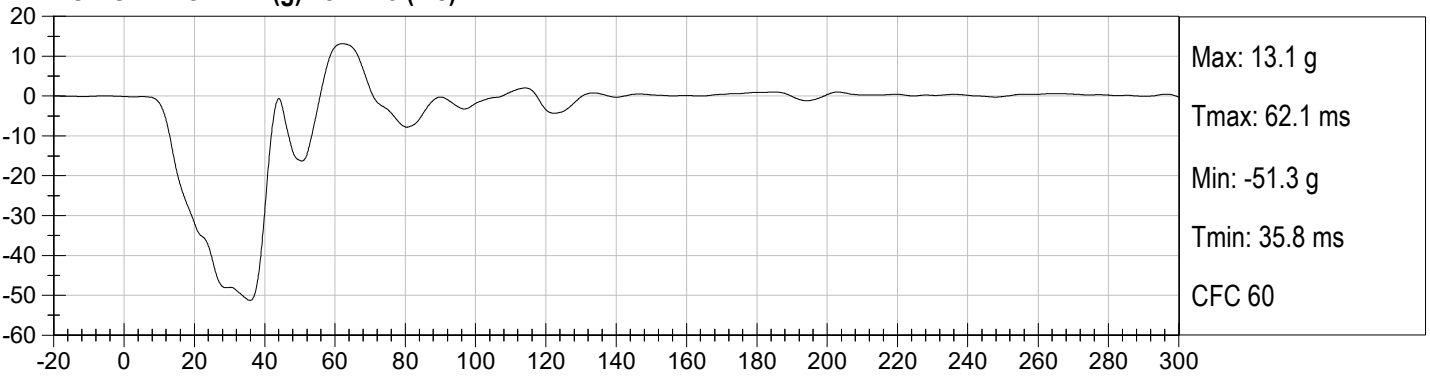
RIGHT REAR SEAT CROSSMEMBER X (g) vs Time (ms)



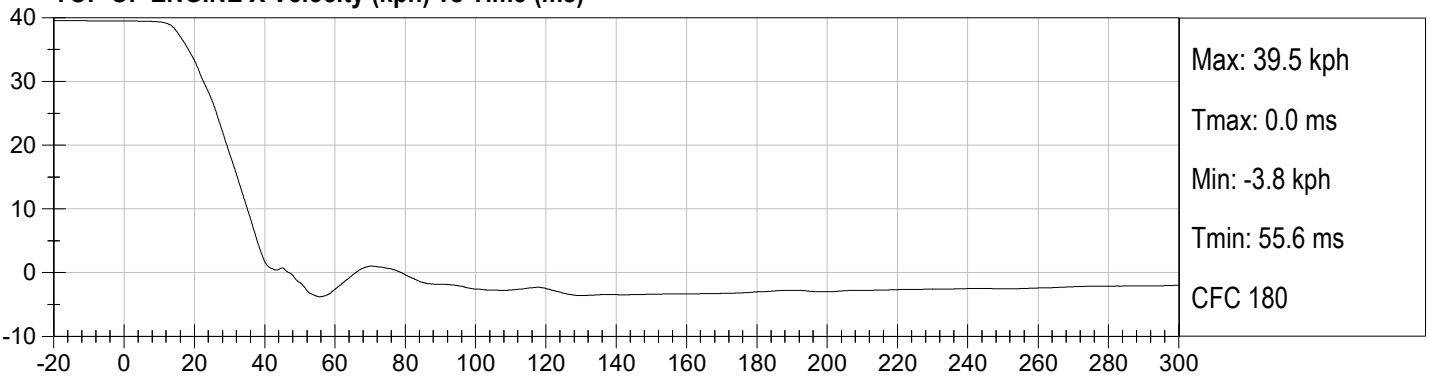
RIGHT REAR SEAT CROSSMEMBER X Velocity (kph) vs Time (ms)



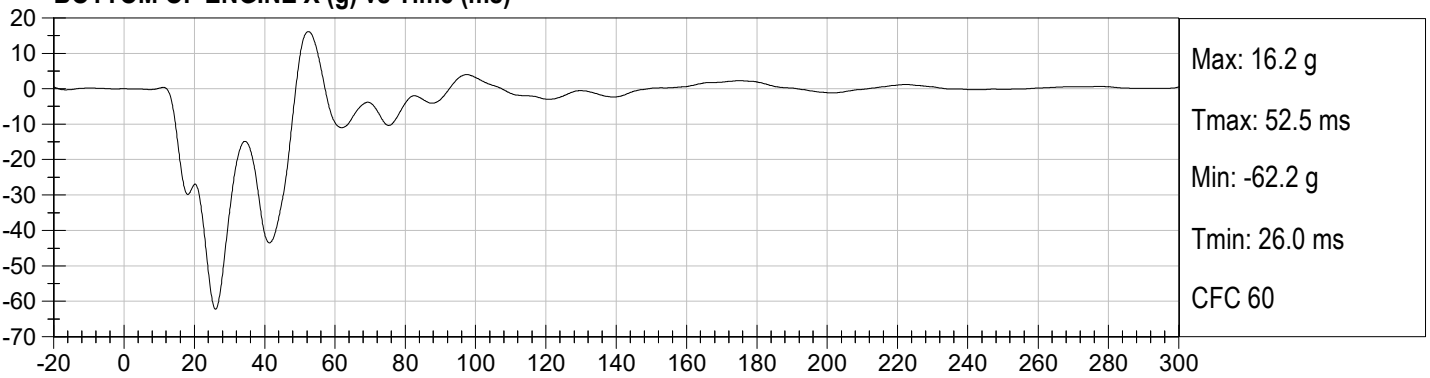
TOP OF ENGINE X (g) vs Time (ms)



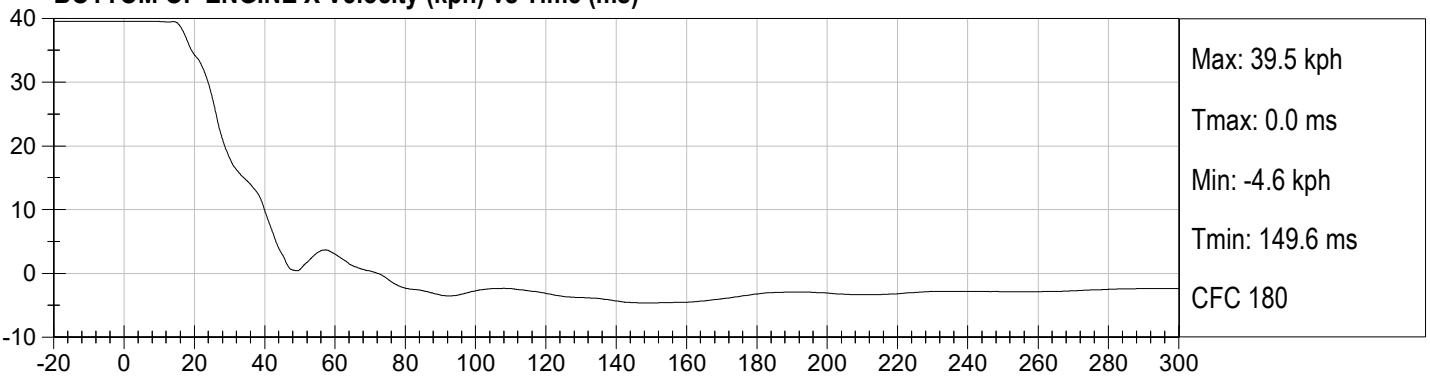
TOP OF ENGINE X Velocity (kph) vs Time (ms)



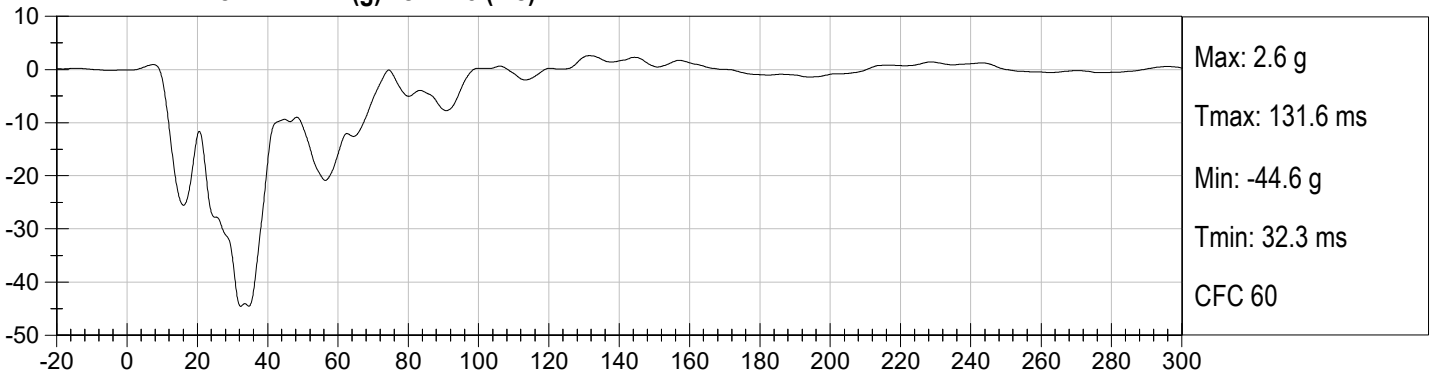
BOTTOM OF ENGINE X (g) vs Time (ms)



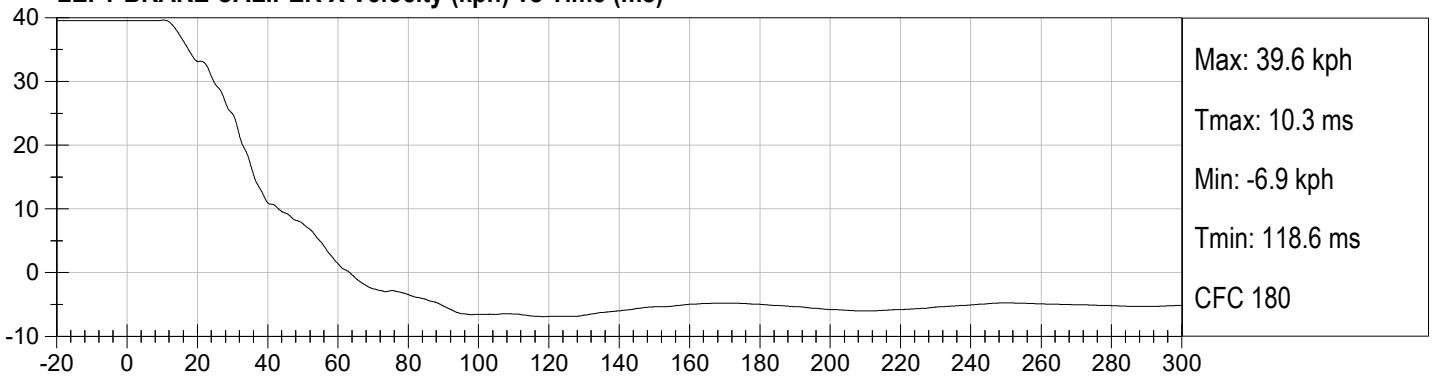
BOTTOM OF ENGINE X Velocity (kph) vs Time (ms)



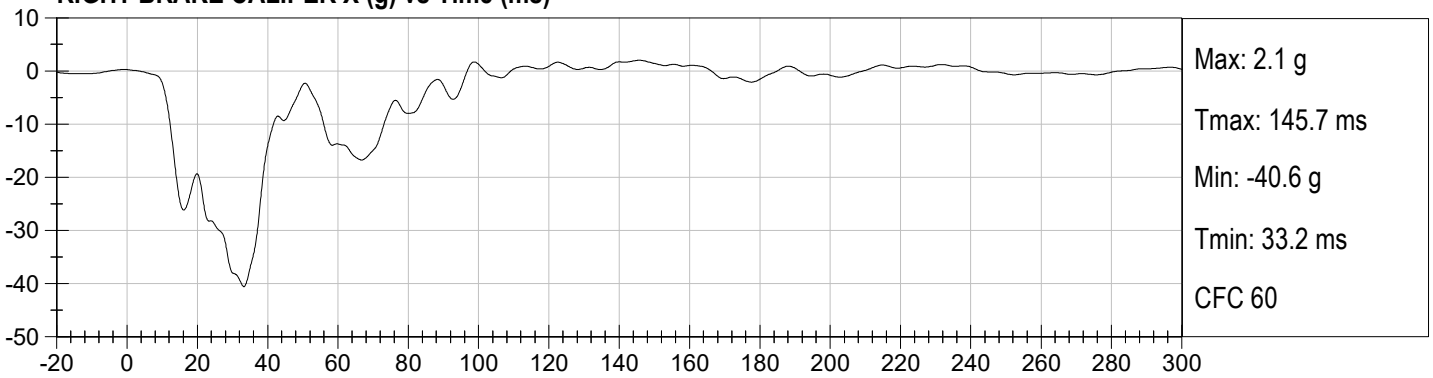
LEFT BRAKE CALIPER X (g) vs Time (ms)



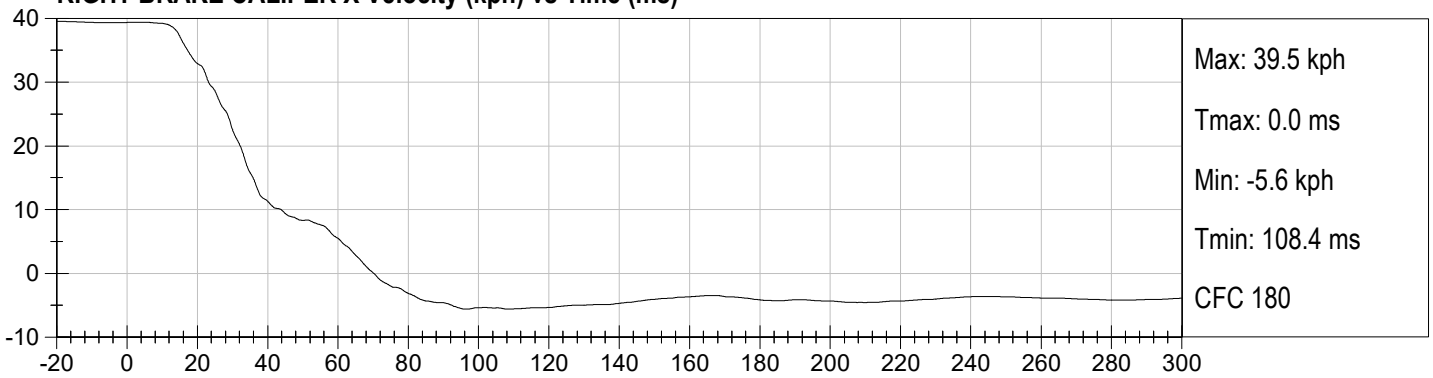
LEFT BRAKE CALIPER X Velocity (kph) vs Time (ms)



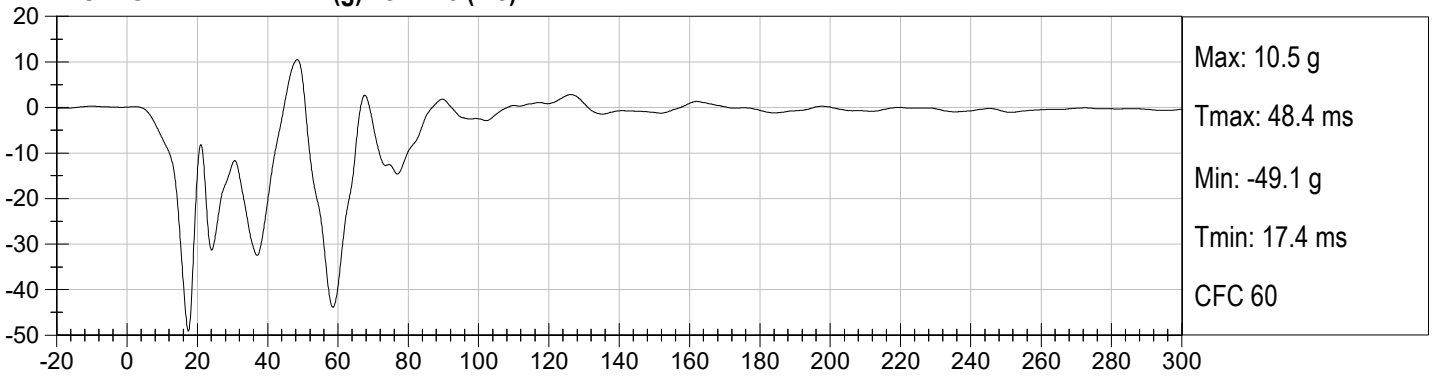
RIGHT BRAKE CALIPER X (g) vs Time (ms)



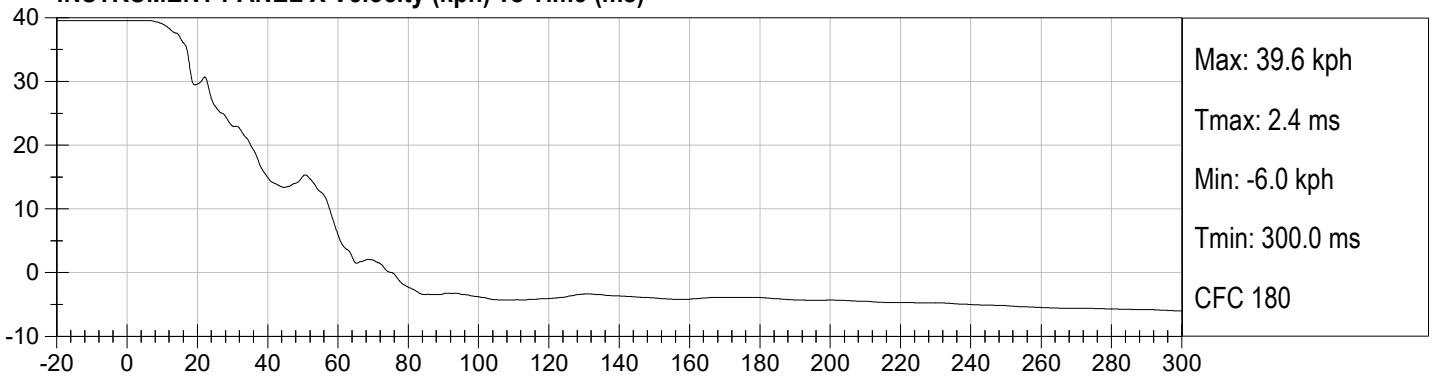
RIGHT BRAKE CALIPER X Velocity (kph) vs Time (ms)



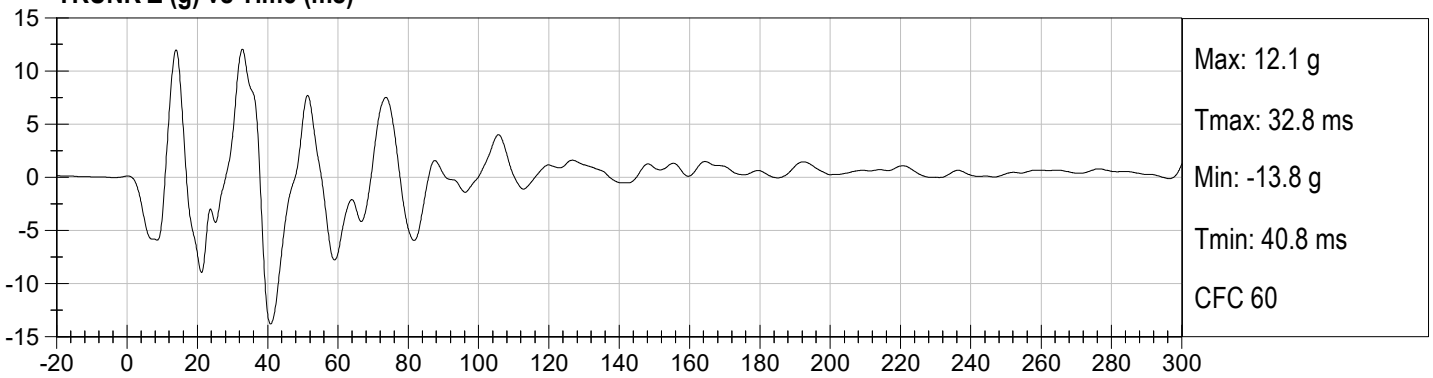
INSTRUMENT PANEL X (g) vs Time (ms)



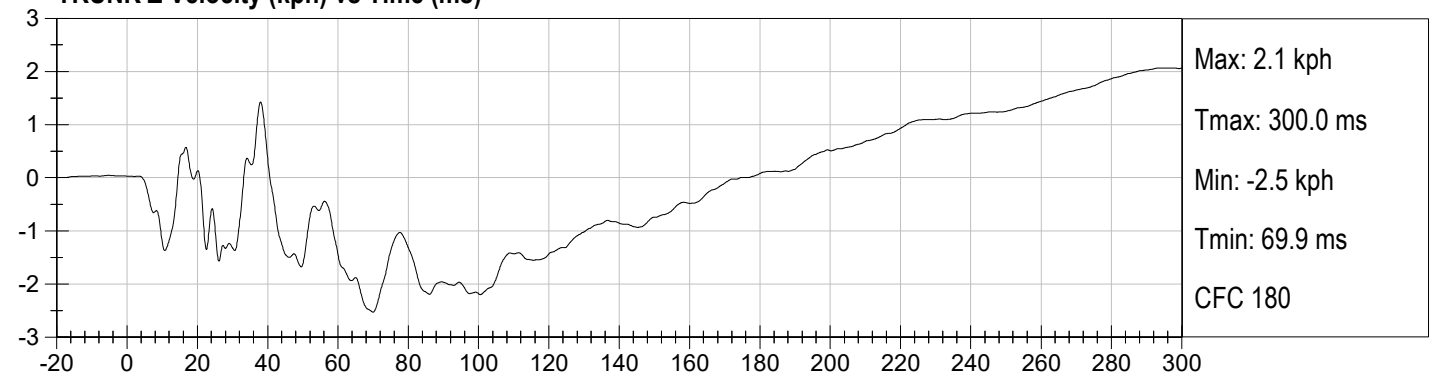
INSTRUMENT PANEL X Velocity (kph) vs Time (ms)



TRUNK Z (g) vs Time (ms)



TRUNK Z Velocity (kph) vs Time (ms)



APPENDIX B

CRASH TEST PHOTOGRAPHS

TABLE OF PHOTOGRAPHS

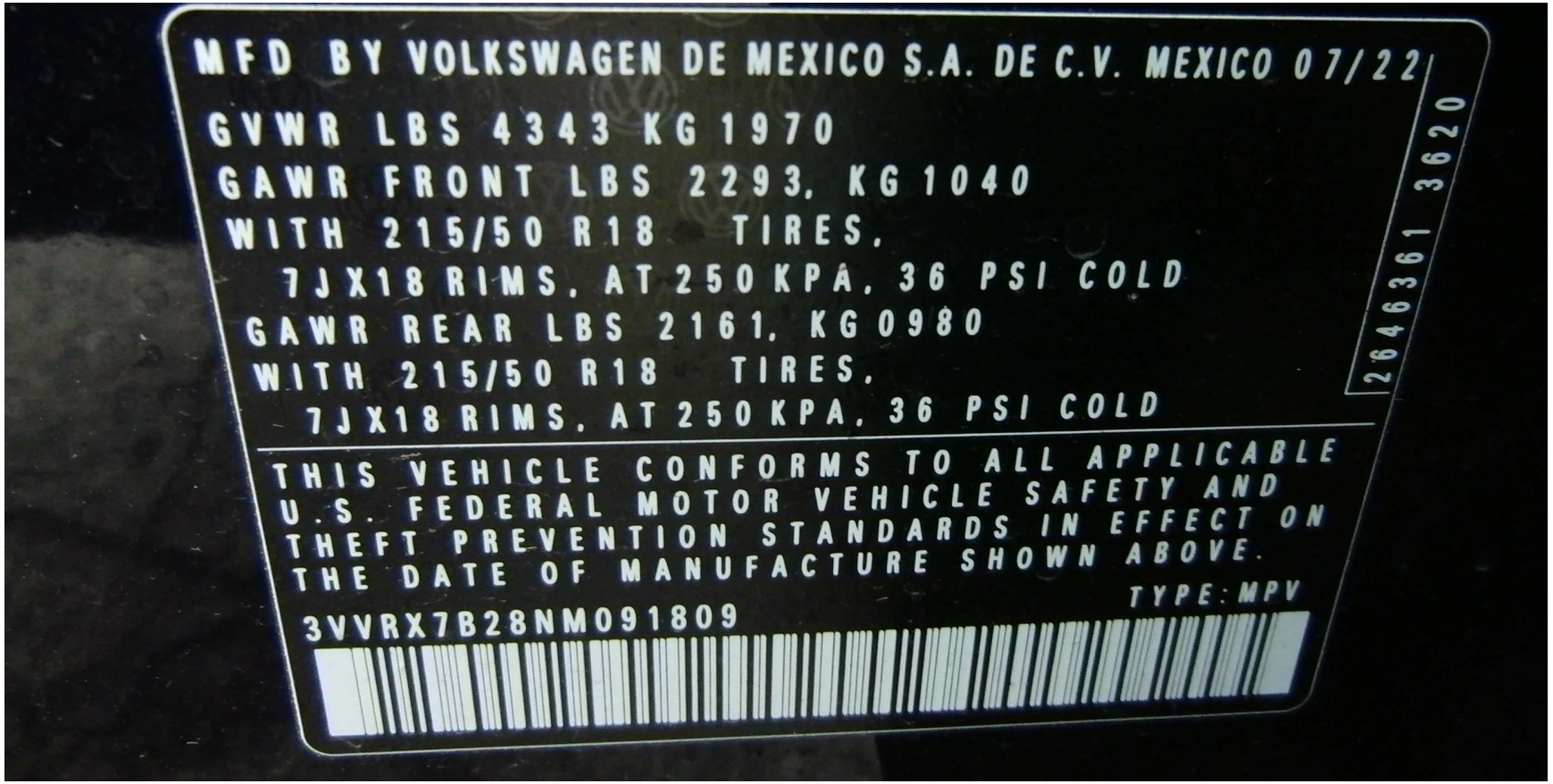


Photo No. 1 - Vehicle Certification Label

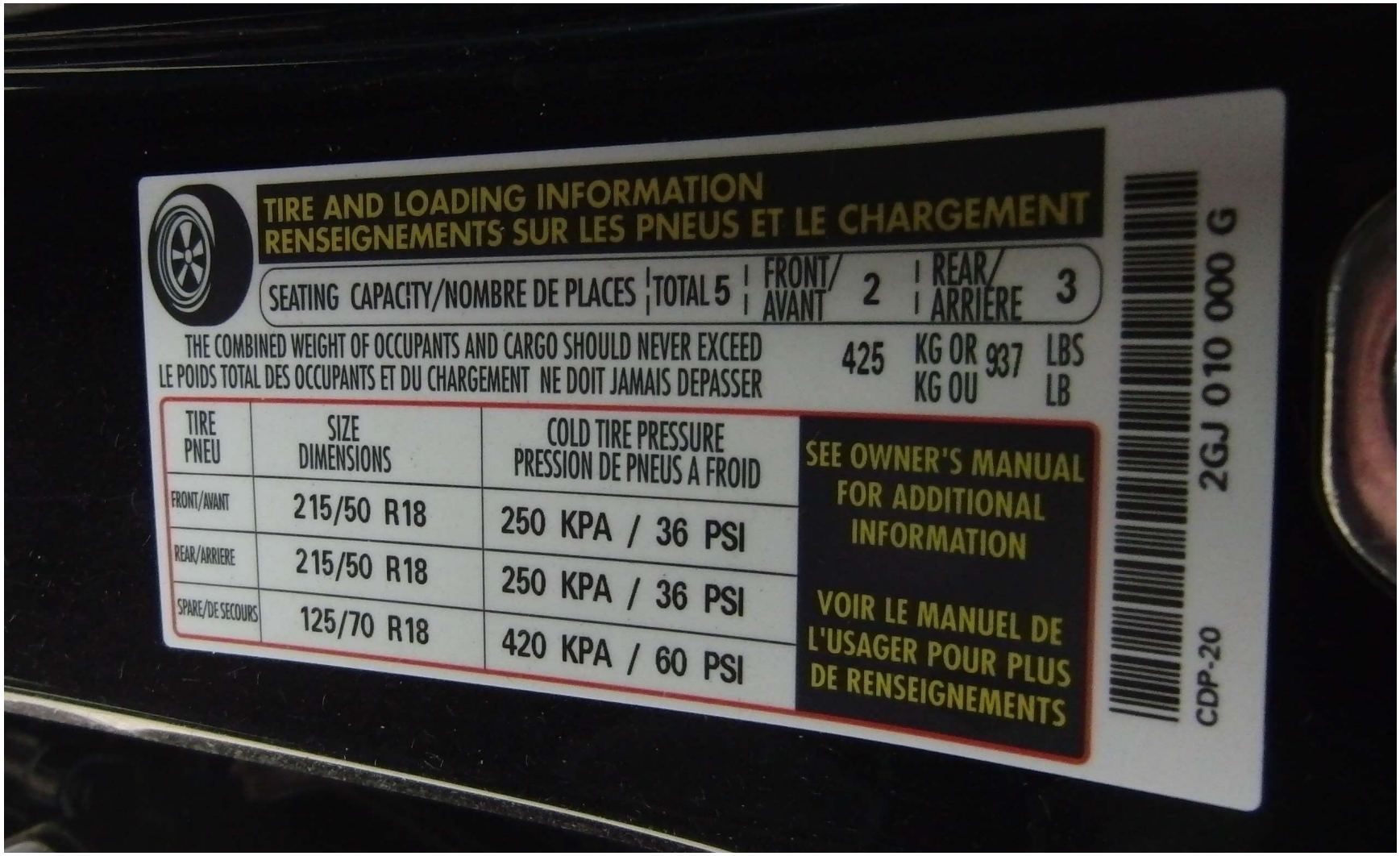


Photo No. 2 - Tire Placard

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

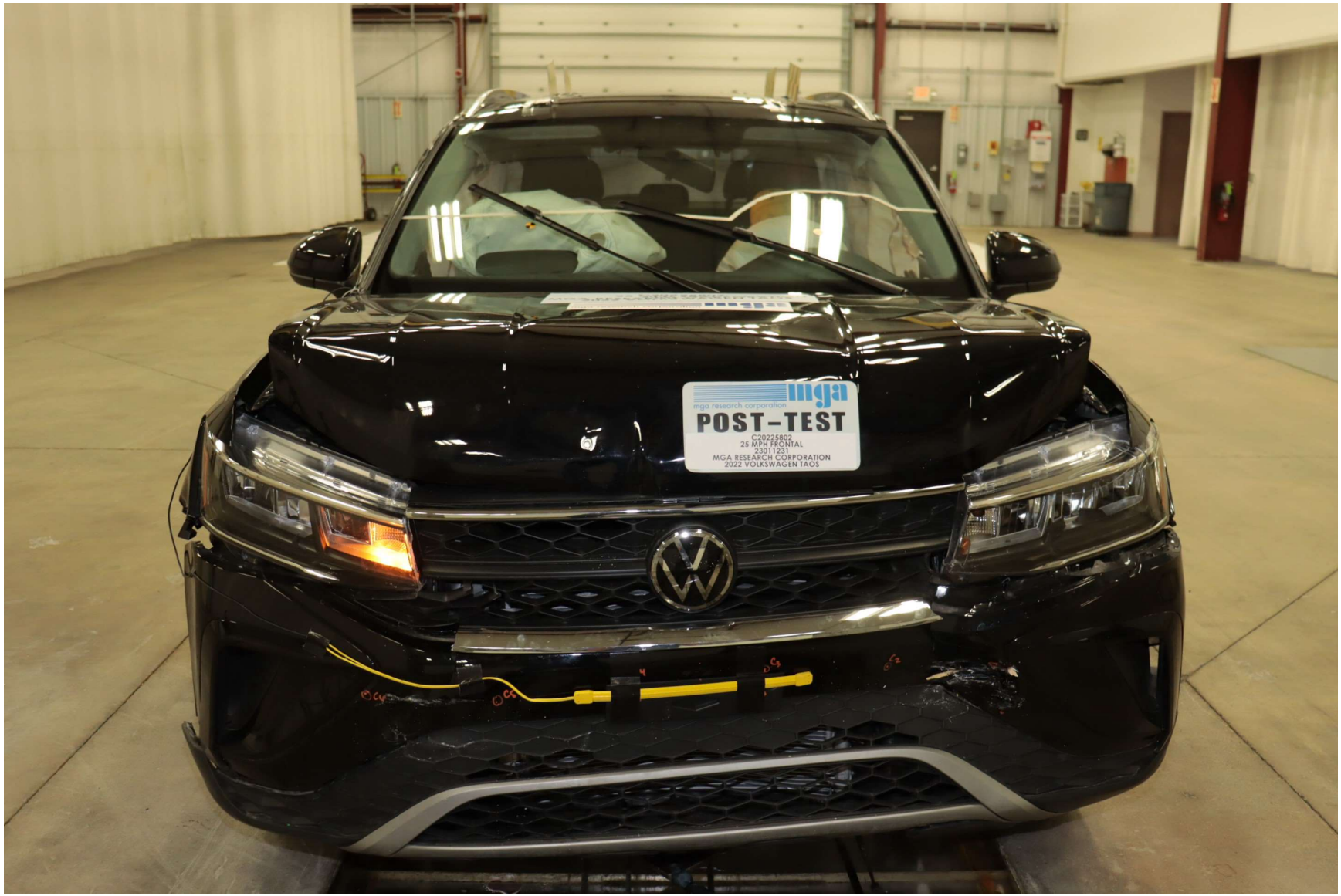


Photo No. 4 - Post-Test Front View of Test Vehicle

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

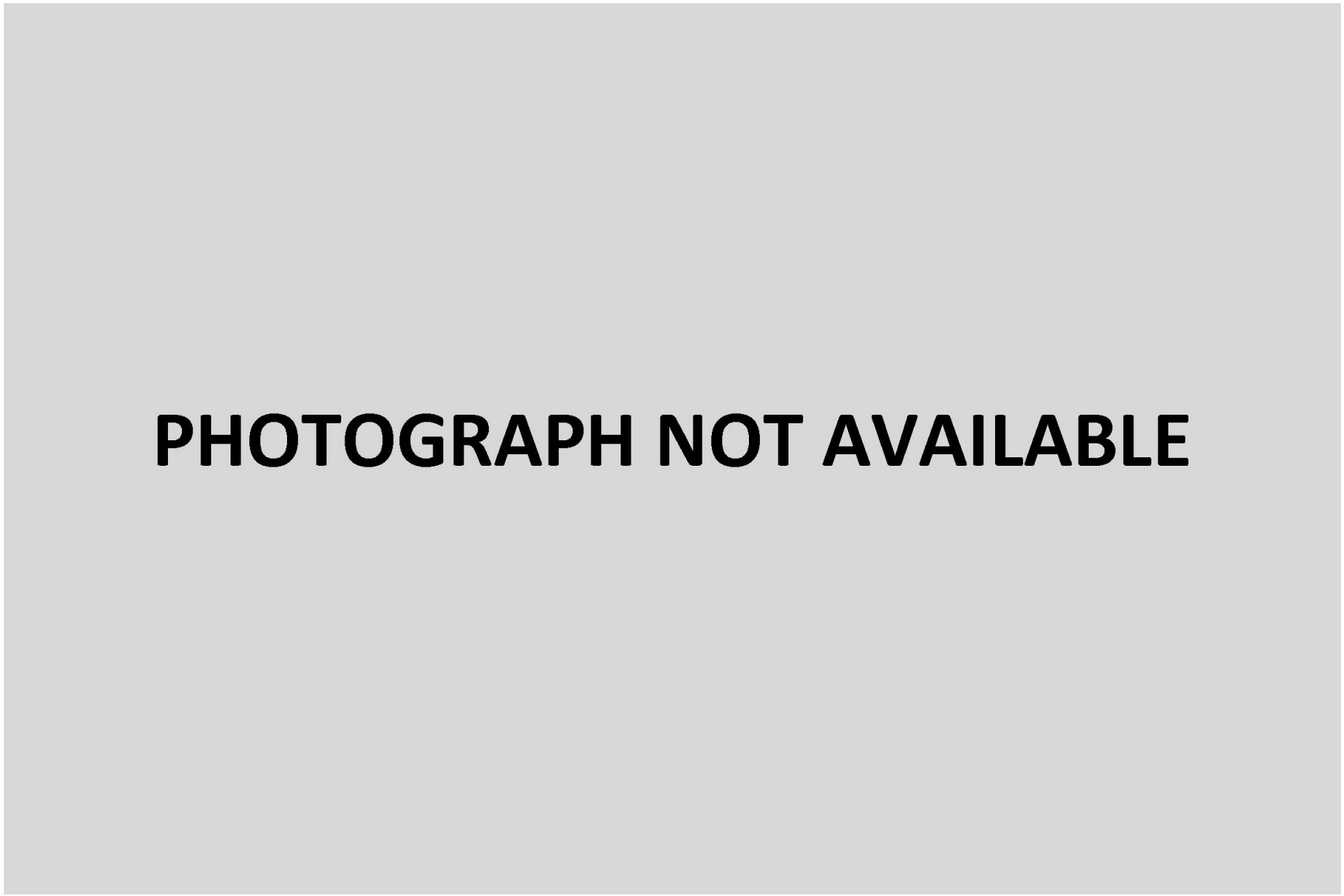


Photo No. 14 - Post-Test Right Rear Three-Quarter View of Test Vehicle

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

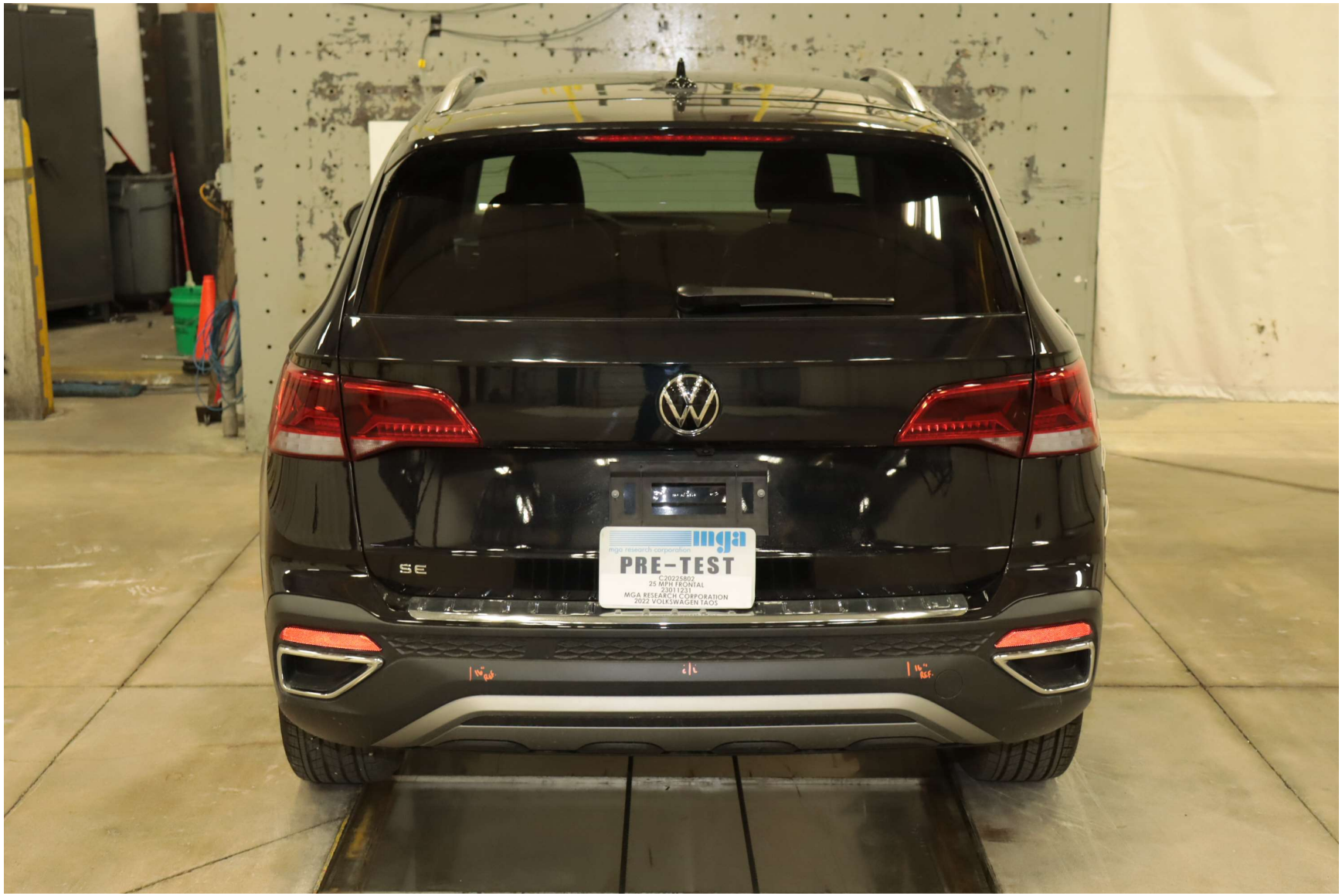


Photo No. 17 - Pre-Test Rear View of Test Vehicle

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 Engine Compartment View

Photo No. 22 - Post-Test Engine Compartment View

Photo No. 23 - Pre-Test Fuel Filler Cap View

Photo No. 24 - Post-Test Fuel Filler Cap View

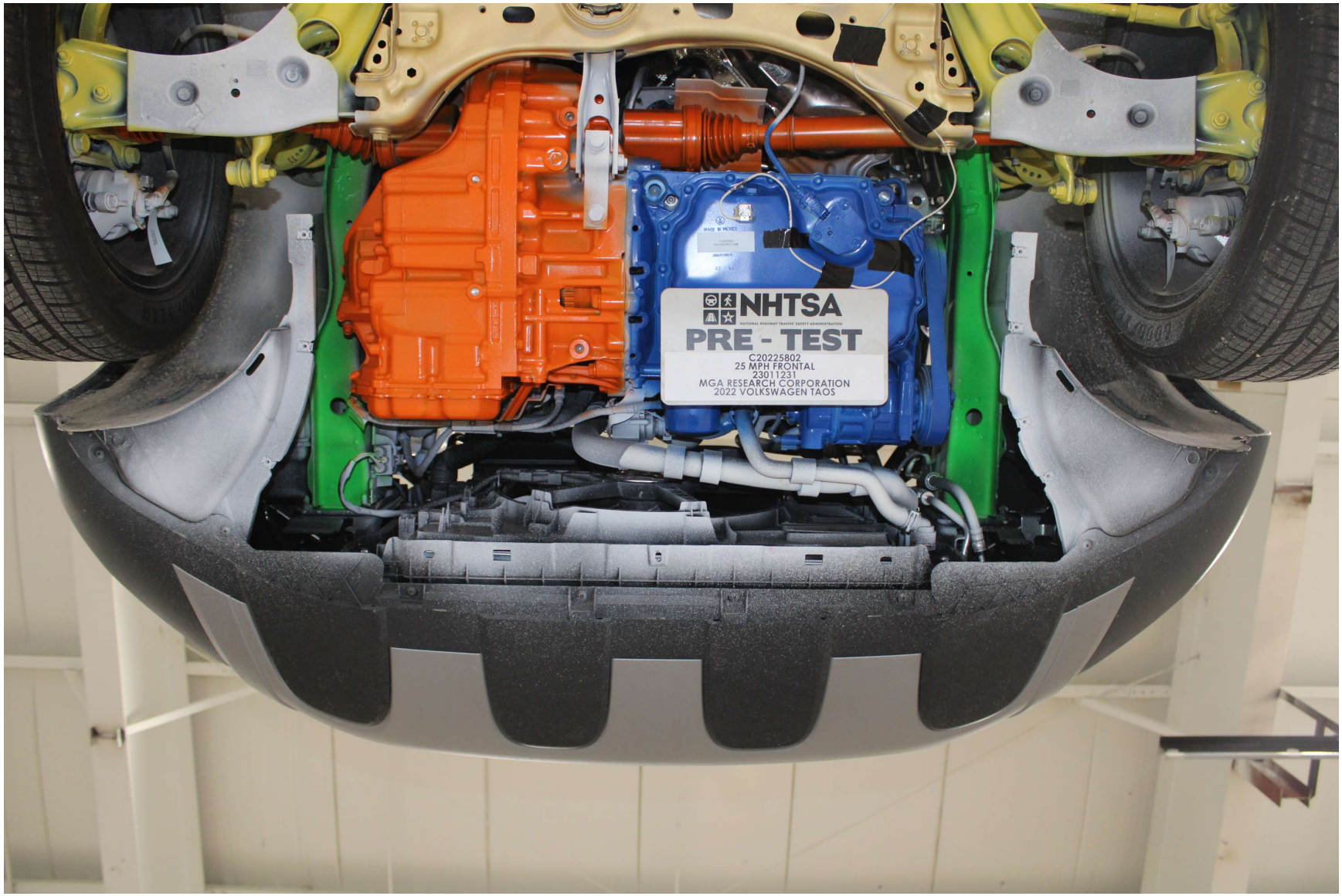


Photo No. 25 - Pre-Test Front Underbody View

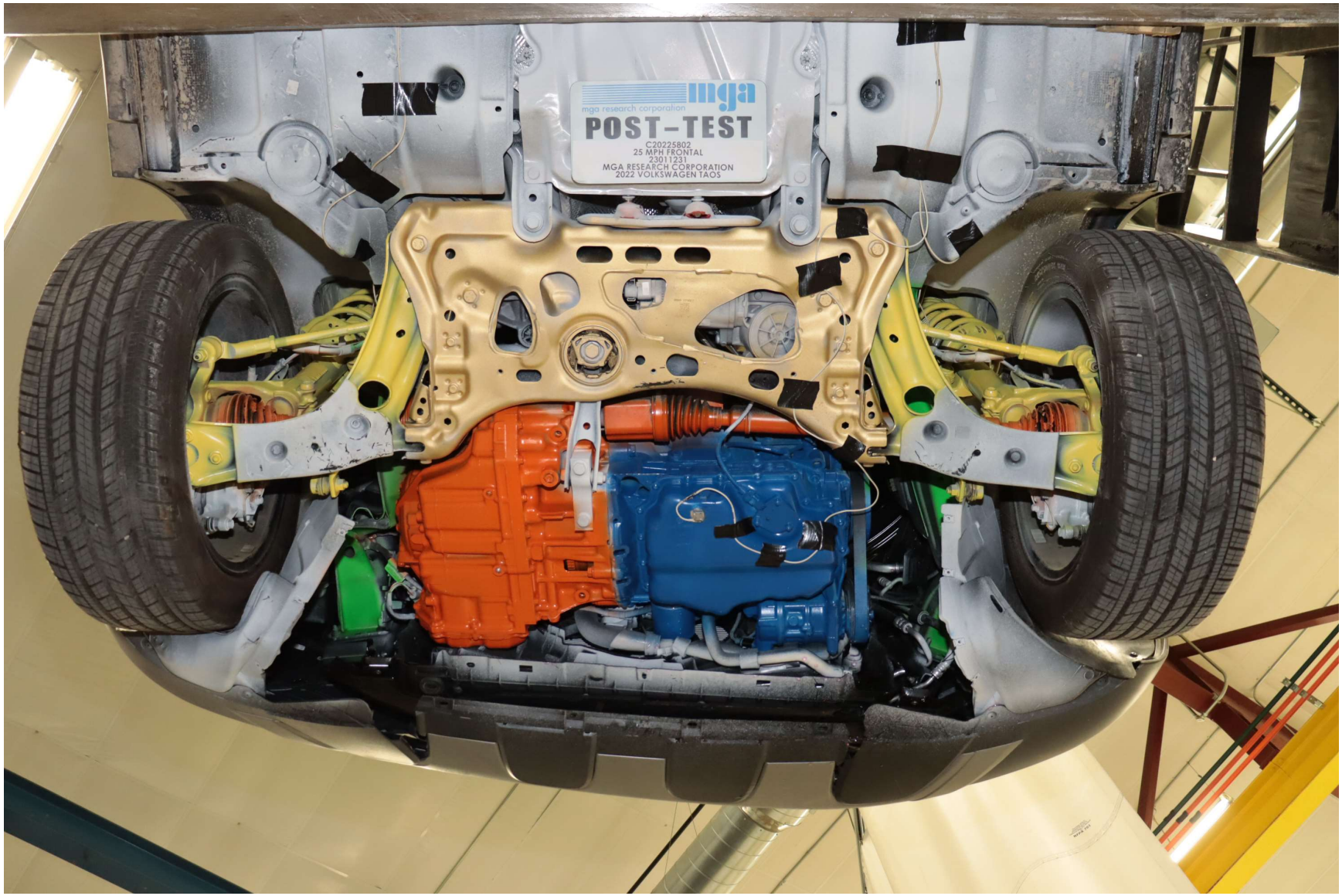


Photo No. 26 - Post-Test Front Underbody View

Photo No. 27 - Pre-Test Mid Underbody View

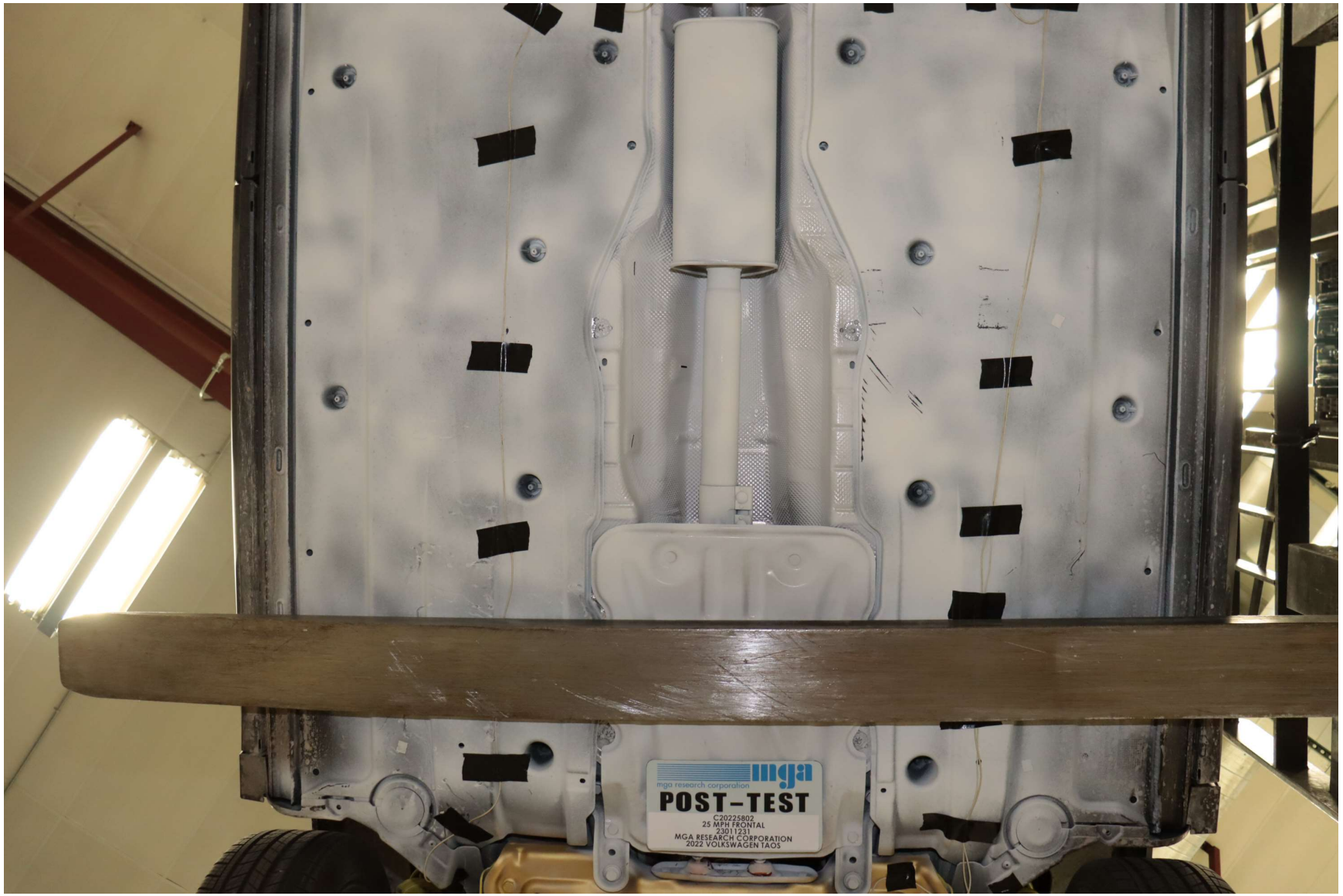


Photo No. 28 - Post-Test Mid Underbody View

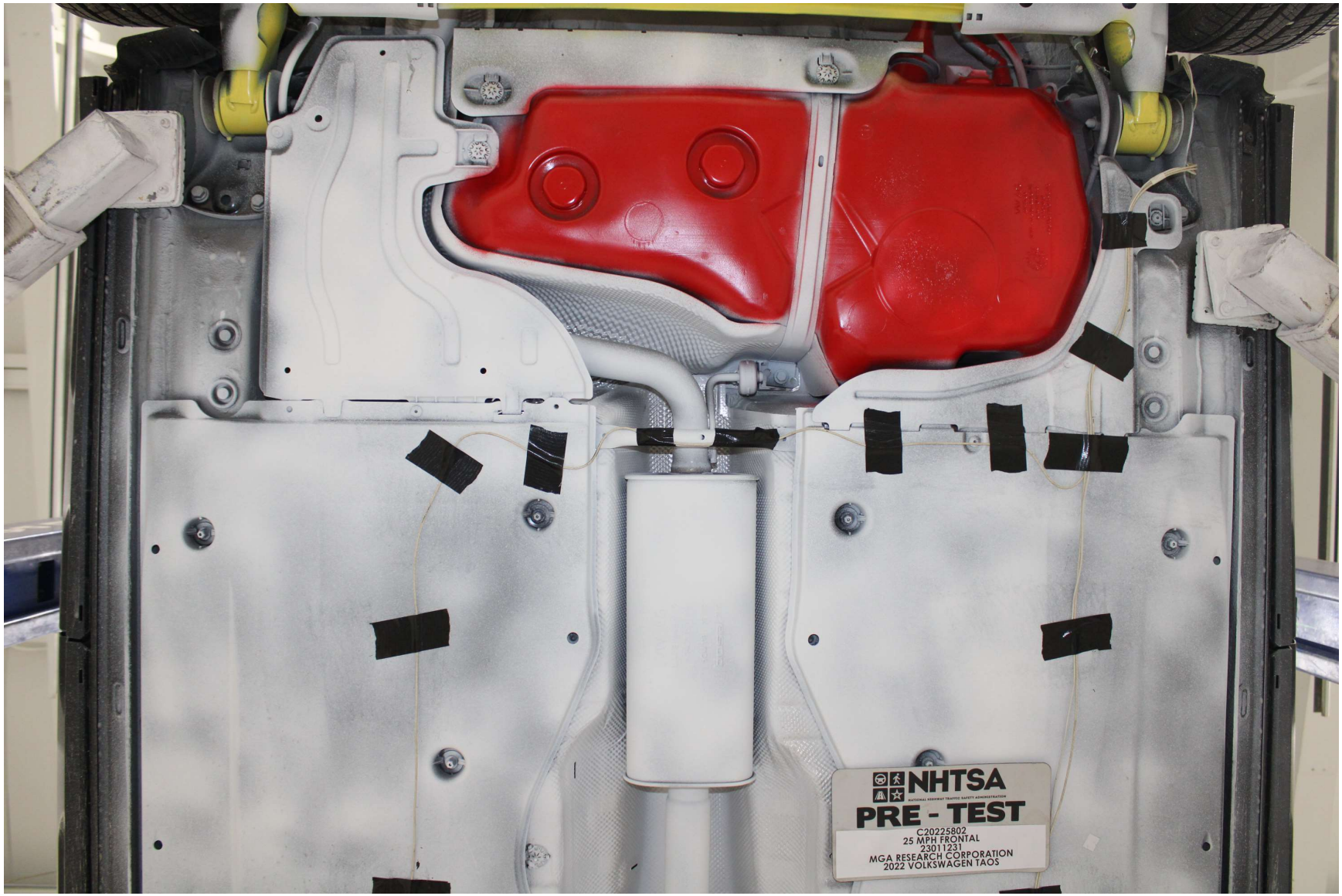


Photo No. 29 - Pre-Test Mid Rear Underbody View.

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

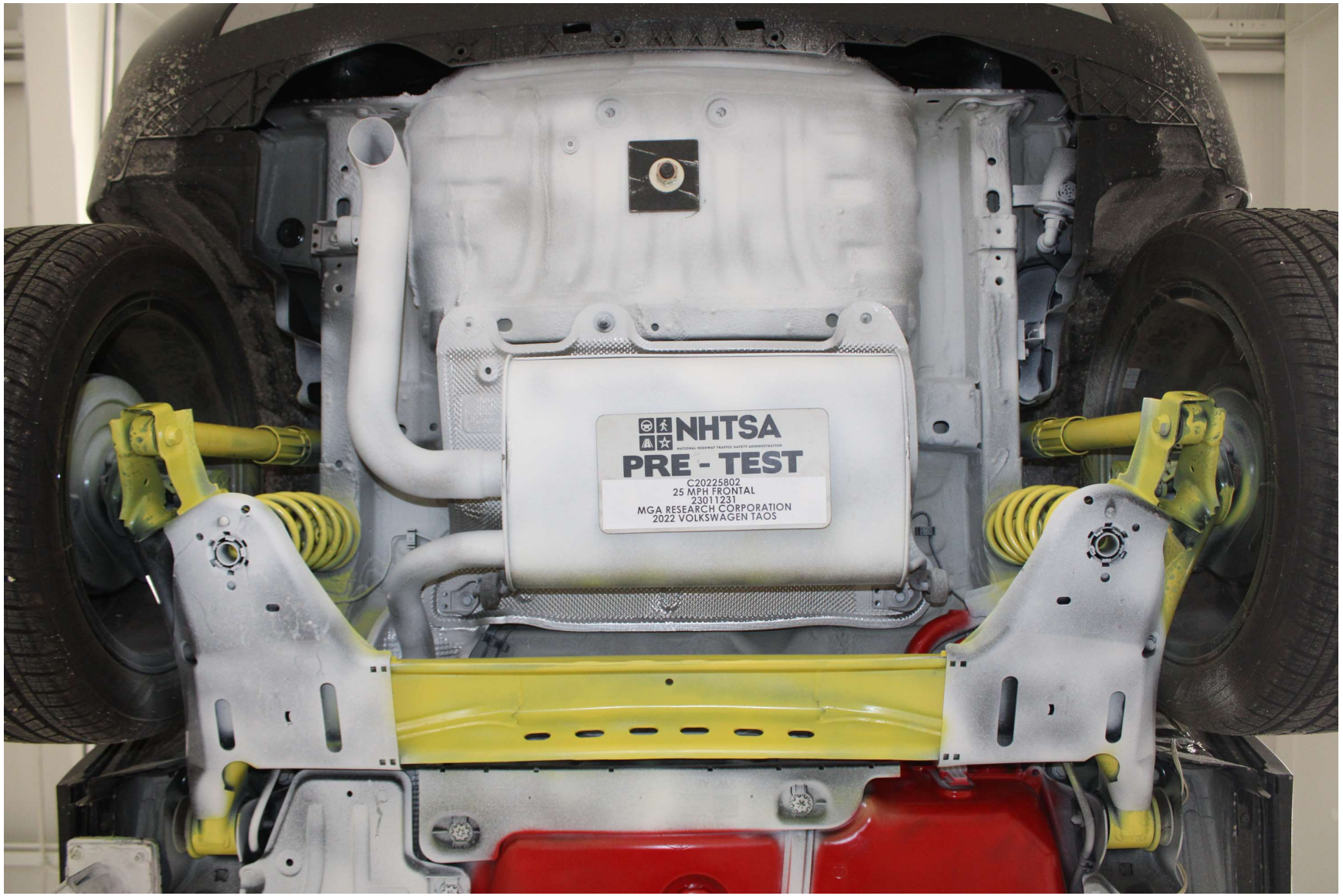


Photo No. 31 - Pre-Test Rear Underbody View

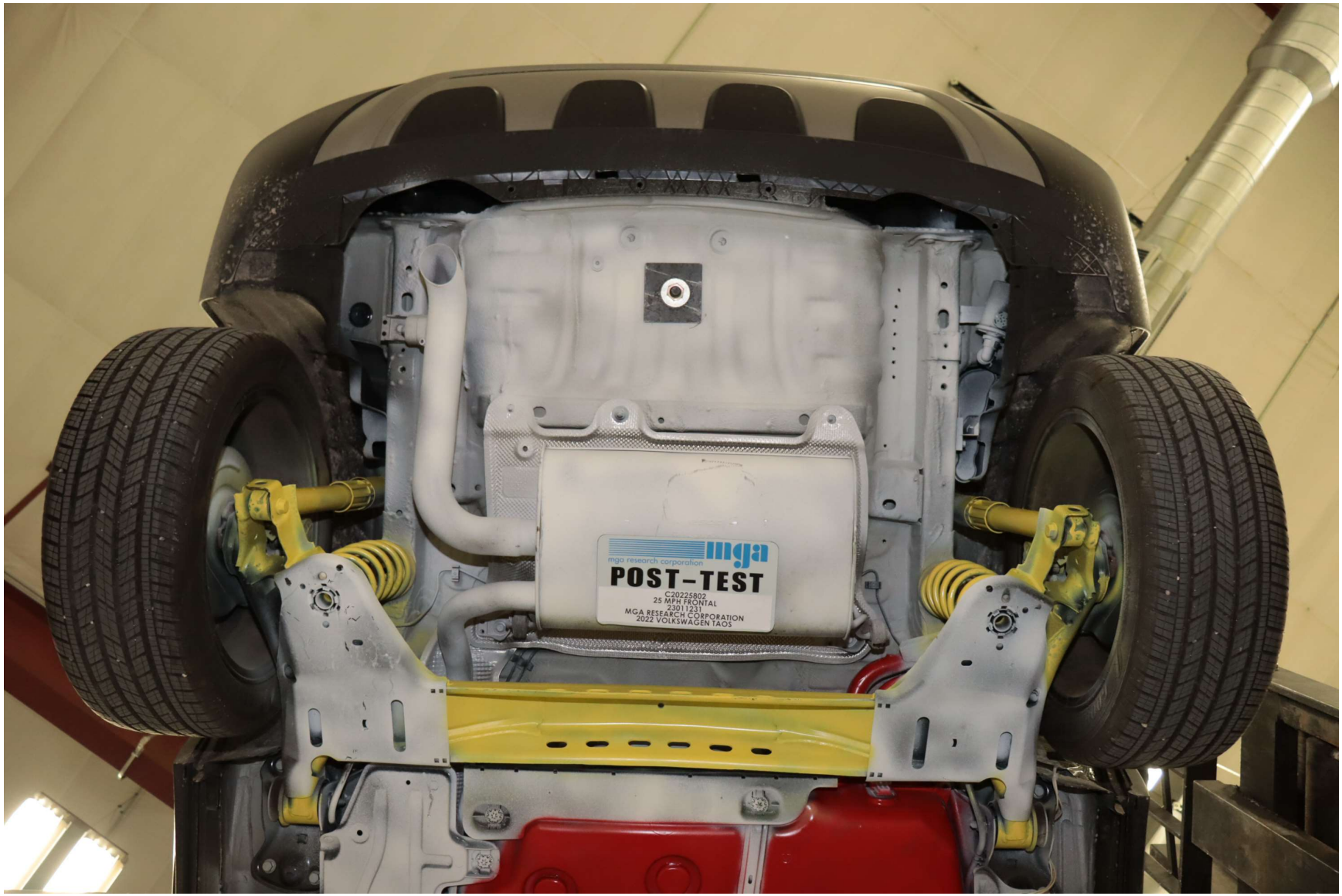


Photo No. 32 - Post-Test Rear Underbody View

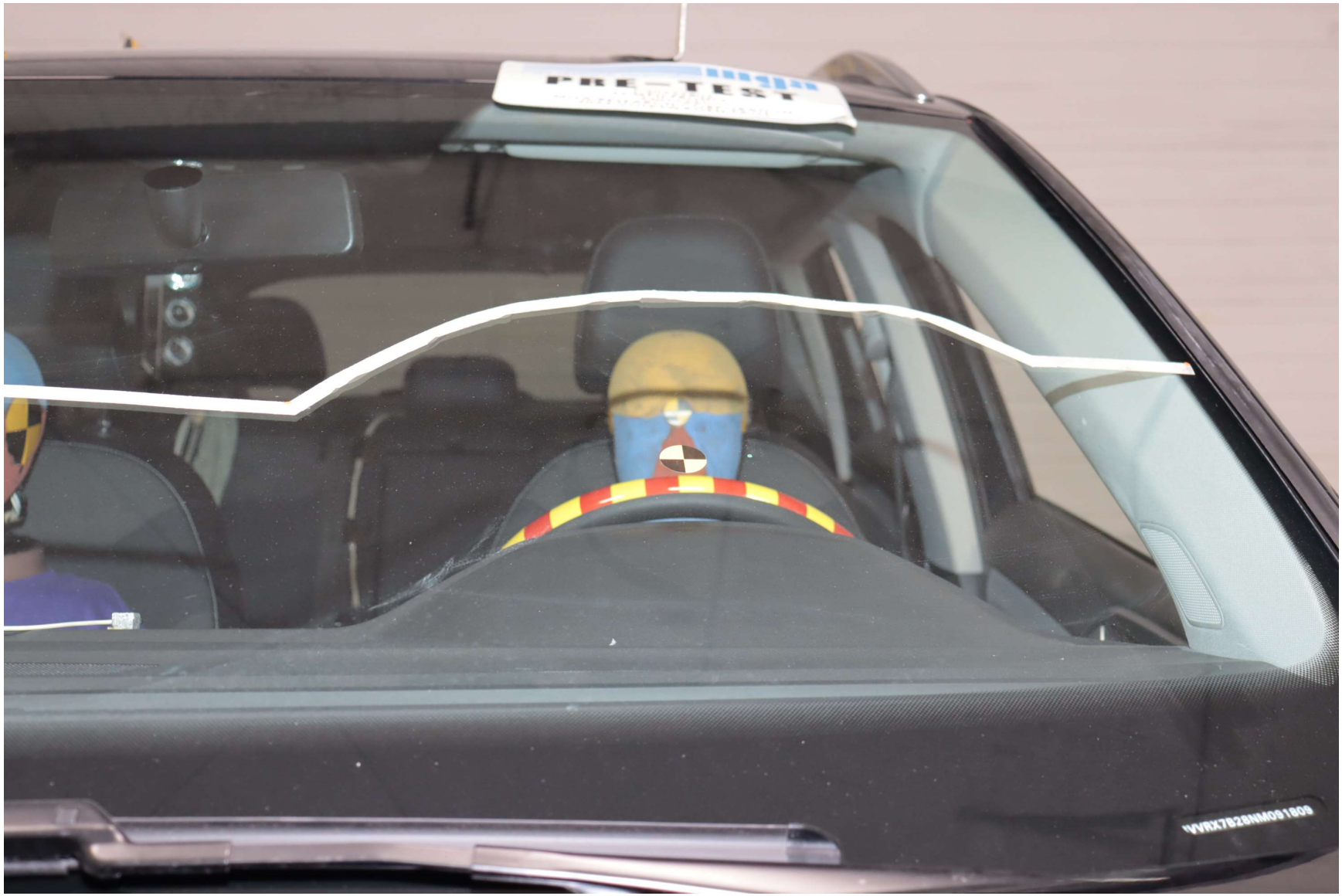


Photo No. 33 - Pre-Test Driver Dummy Front View (head position)

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 Driver 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

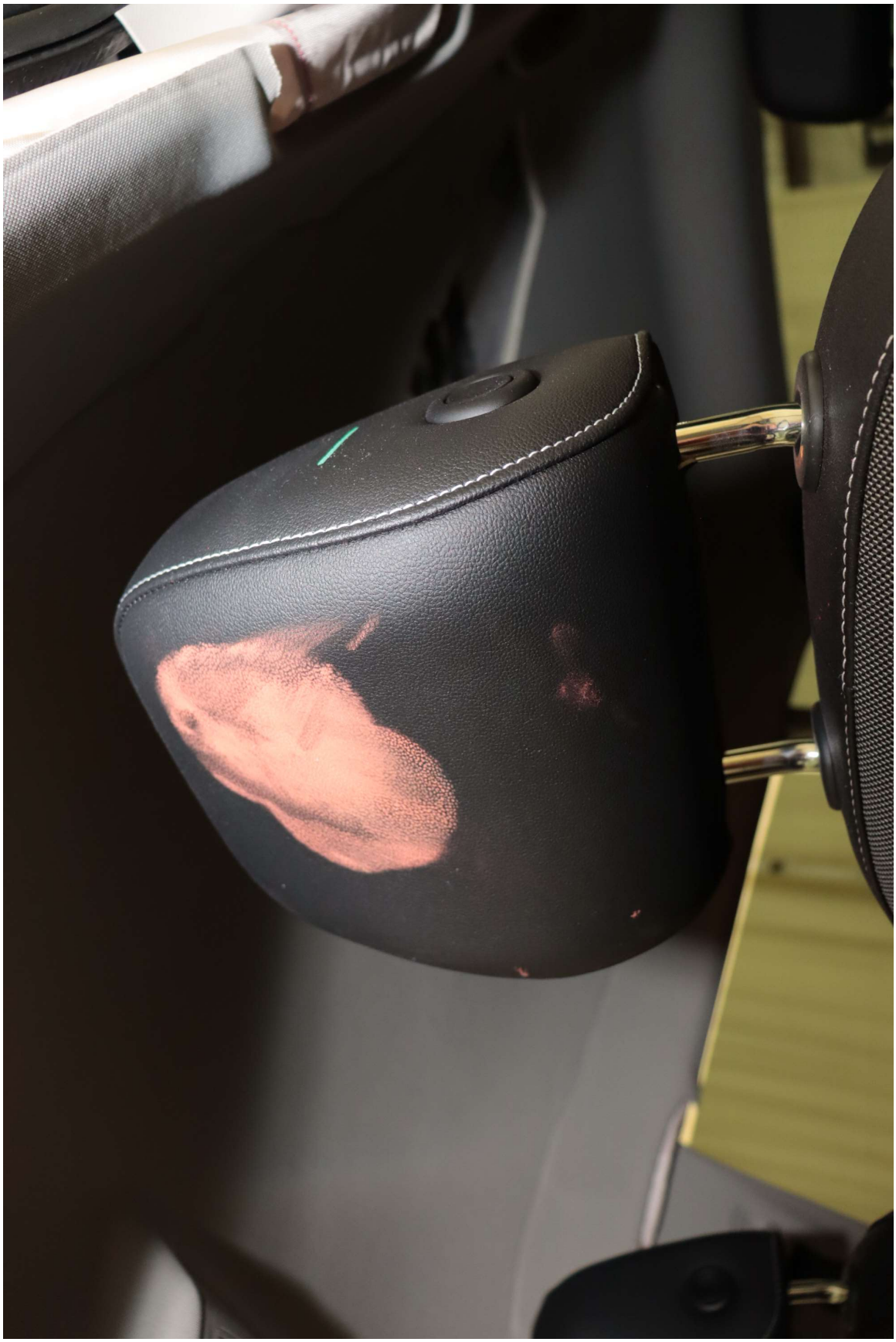


Photo No. 47 - Post-Test Driver Dummy Head Contact (headrest)

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

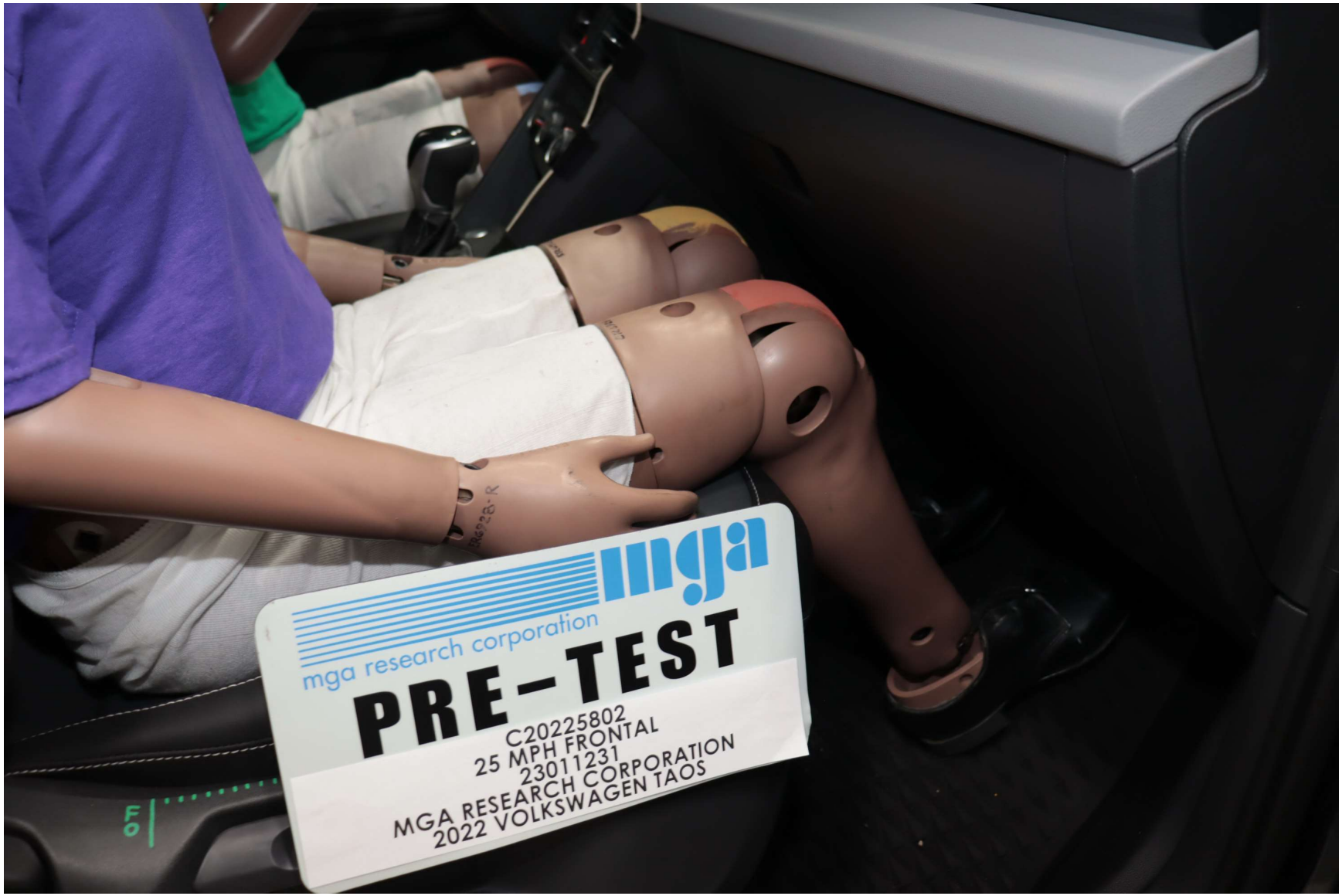


Photo No. 58 - Pre-Test Passenger Side Knee Bolster View

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. Rollover 90 Degrees

Photo No. 63. Rollover 180 Degrees

Photo No. 64. Rollover 270 Degrees

Photo No. 65. Rollover 360 Degrees

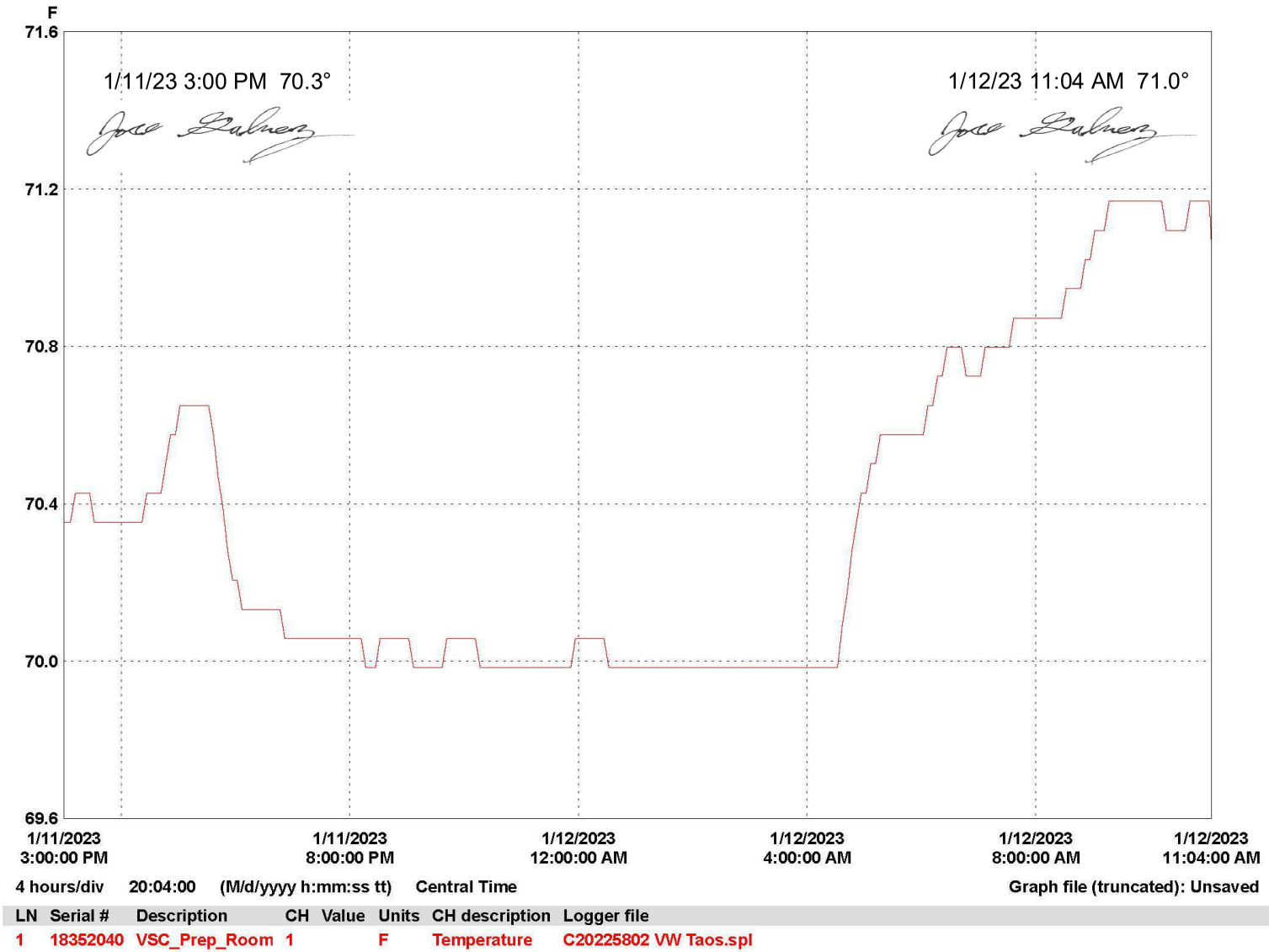


Photo. No. 66 - Temperature Plot

APPENDIX C

INSTRUMENTATION CALIBRATION

INSTRUMENTS FOR DRIVER DUMMY NO.: ER7897

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	T16403	Endevco	08/22/2022
Head Y	T16406	Endevco	08/22/2022
Head Z	T16413	Endevco	08/22/2022
Neck Load Cell	N1157	Denton	12/14/2022
Chest X	P82304	Endevco	08/22/2022
Chest Y	P88172	Endevco	08/22/2022
Chest Z	T16400	Endevco	08/22/2022
Chest Displacement	ER7897	Humanetics	08/23/2022
Left Femur Load Cell	F1750	Denton	08/22/2022
Right Femur Load Cell	F977	Denton	08/22/2022

INSTRUMENTS FOR PASSENGER DUMMY NO.: ER6928

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	T16416	Endevco	08/22/2022
Head Y	T16420	Endevco	08/22/2022
Head Z	T22499	Endevco	08/22/2022
Neck Load Cell	N356	Denton	11/22/2022
Chest X	T24766	Endevco	08/22/2022
Chest Y	T24796	Endevco	08/22/2022
Chest Z	T24816	Endevco	08/22/2022
Chest Displacement	ER6928	Humanetics	08/23/2022
Left Femur Load Cell	F9428	GSE	08/22/2022
Right Femur Load Cell	F2181	Humanetics	08/23/2022

VEHICLE INSTRUMENTS

	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Left Rear Seat Crossmember X	A340806	MSI	11/23/2022
Right Rear Seat Crossmember X	A340224	MSI	11/23/2022
Top of Engine X	P94812	Endevco	10/26/2022
Bottom of Engine X	T32176	Endevco	11/10/2022
Right Brake Caliper X	A405208	MSI	08/22/2022
Instrument Panel X	A390899	MSI	08/22/2022
Left Brake Caliper X	A383113	MSI	08/03/2022
Trunk Z	A390962	MSI	11/15/2022