REPORT NUMBER: 208-MGA-2003-008

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

New United Motor Manufacturing
2003 Toyota Corolla 4 Door Sedan
NHTSA No.: C35107

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

Test Date: June 5, 2003
Report Date: June 16, 2003

FINAL REPORT

PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OFFICE OF ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
MAIL CODE: NVS-220
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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 DTNH22-98-D-11055.

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Prepared by: Jeff Lewandowski, Project Engineer

Date: June 16, 2003

Reviewed by: David Winkelbauer, Facility Director

Date: June 16, 2003

FINAL REPORT ACCEPTED BY OVSC:

Accepted By: [Signature]

Acceptance Date: 9/12/03
Compliance tests were conducted on the subject 2003 Toyota Corolla in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP203-12 for the determination of FMVSS 208 compliance. Test failures identified were as follows:

TEST FAILURES: None

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"
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SECTION 1
PURPOSE OF COMPLIANCE TEST

This unbelted 40 kmph flat frontal barrier impact test is part of the Federal Motor Vehicle Safety Standard (FMVSS) 208, 212, 219 (partial), and 301 compliance test program conducted for the National Highway Traffic Safety Administration (NHTSA) by MGA Research Corporation (MGA) under Contract No. DTNH22-98-D-11055. The purpose of this test was to determine whether the subject vehicle, a 2003 Toyota Corolla 4 Door, NHTSA No. C35107, 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. TP208-12 dated January 14, 2003.
SECTION 2
TESTS PERFORMED

Test Vehicle: 2003 Toyota Corolla  
Test Program: FMVSS 208 Compliance

The following checked items indicate the tests that were performed:

1. Rear outboard seating position seat belts (S4.1.1.2(b) & (S4.2.4)
2. Air bag labels (S4.5.1)
3. Readiness indicator (S4.5.2)
4. Passenger air bag manual cut-off device (S4.5.1)
5. Lap belt lockability (S7.1.1.5)
6. Seat belt warning system (S7.3)
7. Seat belt contact force (S7.4.4)
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. Suppression tests with 12-month-old CRABI dummy (Part 572, Subpart N)
12. Suppression tests with newborn infant (Part 572, Subpart K)
13. Suppression tests with 3-year-old dummy (Part 572, Subpart P)
14. Suppression tests with 6-year-old dummy (Part 572, Subpart O)
15. Test of reactivation of the passenger air bag system with an unbelted 5th percentile female dummy
16. Low risk deployment test with 12-month-old dummy (Part 572, Subpart N)
17. Low risk deployment test with 3-year-old dummy (Part 572, Subpart P)
18. Low risk deployment test with 6-year-old dummy (Part 572, Subpart R)
19. Low risk deployment test with 5th female dummy (Part 572, Subpart O)
20. 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 female dummy driver and passenger (32 to 40 kmph) (S5.1.2(a)(1) or S5.1.2(b))
   Frontal 0°
   Belted 50th male dummy driver (0 to 48 kmph) (S5.1.1(b)(1) or S5.1.1(a))
   Belted 50th male dummy passenger (0 to 48 kmph) (S5.1.1(b)(1) or S5.1.1(a))
   Belted 5th female dummy driver (0 to 48 kmph) (S5.1.1(b)(2))
   Belted 5th female dummy passenger (0 to 48 kmph) (S5.1.1(b)(1))
   Belted 50th male dummy driver and passenger (0 to 56 kmph) (S5.1.2(a)(2))
   Unbelted 50th male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a)(1))
   Unbelted 50th male dummy driver (32 to 40 kmph) (S5.1.2(a)(2) or S5.1.2(b))
   Unbelted 50th male dummy passenger (32 to 40 kmph) (S5.1.2(a)(2) or S5.1.2(b))
Unbelted 5th female dummy driver (32 to 40 kmph) (S15.1(b))
Unbelted 5th female dummy passenger (32 to 40 kmph) (S16.1(b))
40% Offset 0° Belted 5th male dummy driver and passenger (0 to 40 kmph) (S19.1)

21. Sled Test: unbelted 50th male dummy driver and passenger (S13)
22. FMVSS 204 Indicant Test
23. FMVSS 212 Test
24. FMVSS 219 Indicant Test
25. FMVSS 301 Frontal Test

For the crash tests, the vehicle was instrumented with 8 accelerometers. The accelerometer 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 recording using high speed film.

The vehicle appears to meet the performance requirements to which it was tested.
SECTION 3

INJURY RESULT SUMMARY FOR CRASH TEST

Test Vehicle: 2003 Toyota Corolla  
Test Program: FMVSS 208 Compliance  
NHTSA No.: C35107  
Test Date: 6/5/03

Frontal Crash: X, Offset Crash, _  
Low Risk Deployment

Impact Angle: Zero degrees

Belted Dummies: ___ Yes  
___ X No

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

Test Speed: 39.3 kmph

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

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

Test Weight: 1329.1 kg

50th Percentile Male Frontal Crash Test
Vehicles certified to S5.1.1(b)(1), S5.1.1(b)(2), S5.1.2(a)(2), or S5.1.2(b)

<table>
<thead>
<tr>
<th>Injury Criteria</th>
<th>Max. Allowable Injury Assessment Values</th>
<th>Driver</th>
<th>Passenger</th>
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<tr>
<td>HIC15</td>
<td>700</td>
<td>53</td>
<td>76</td>
</tr>
<tr>
<td>N_{th}</td>
<td>1.0</td>
<td>0.07</td>
<td>0.17</td>
</tr>
<tr>
<td>N_{cf}</td>
<td>1.0</td>
<td>0.23</td>
<td>0.12</td>
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<tr>
<td>N_{cf}</td>
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<td>0.08</td>
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<tr>
<td>Neck Tension</td>
<td>4170 N</td>
<td>999</td>
<td>757</td>
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<td>Neck Compression</td>
<td>4000 N</td>
<td>153</td>
<td>194</td>
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<td>Chest g</td>
<td>60 g</td>
<td>39</td>
<td>32</td>
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<tr>
<td>Chest Displacement</td>
<td>63 mm</td>
<td>25</td>
<td>7</td>
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<tr>
<td>Left Femur</td>
<td>10,000 N</td>
<td>5130</td>
<td>3413</td>
</tr>
<tr>
<td>Right Femur</td>
<td>10,000 N</td>
<td>3822</td>
<td>5464</td>
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The photographic target positions described in Data Sheet 32 were done to the previous procedure. There were no other unexpected events or items to discuss.
<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
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<tr>
<td>Test Vehicle:</td>
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<tr>
<td>Test Program:</td>
<td>FMVSS 208 Compliance</td>
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<tr>
<td>NHTSA No.:</td>
<td>C35107</td>
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<tr>
<td>Test Date:</td>
<td>6/5/03</td>
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</tbody>
</table>
DATA SHEET 1
COTR VEHICLE WORK ORDER

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
NHTSA No.: C35107
Test Date: 6/5/03
COTR Signature: ____________________________

Test to be performed for this vehicle are checked below:

1. Rear Outboard Seating Position Seat Belts (S4.1.2(b)) & (S4.2.4)
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 (S7.4.4)
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. Suppression tests with 12-month-old CRABI dummy (Part 572, Subpart N) using the following indicated child restraints.

Section B
Britax HANDLE with Care 191  Full Rearward  Mid Position  Full Forward
Century Assurance 4553  Full Rearward  Mid Position  Full Forward
Century Avanta SE 41530  Full Rearward  Mid Position  Full Forward
Century Smart Fit 4543  Full Rearward  Mid Position  Full Forward
Cosco Arivia 62727  Full Rearward  Mid Position  Full Forward
Cosco Opus 35 02603  Full Rearward  Mid Position  Full Forward
Evenflo Discovery Adjust Right 212  Full Rearward  Mid Position  Full Forward
Evenflo First Choice 204  Full Rearward  Mid Position  Full Forward
Evenflo On My Way Position Right V 282  Full Rearward  Mid Position  Full Forward
Graco Infant 6457  Full Rearward  Mid Position  Full Forward

Section C
Britax Roundabout 161  Full Rearward  Mid Position  Full Forward
Century Encore 4612  Full Rearward  Mid Position  Full Forward
Century STE 1000 4416  Full Rearward  Mid Position  Full Forward
Cosco Olympian 02803  Full Rearward  Mid Position  Full Forward
Cosco Touring 02519  Full Rearward  Mid Position  Full Forward
Evenflo Horizon V 425  Full Rearward  Mid Position  Full Forward
Evenflo Medallion 254  Full Rearward  Mid Position  Full Forward

12. Suppression tests with newborn infant (Part 572, Subpart K) using the following indicated child restraints.

Section A
Cosco DreamRide 02-719  Full Rearward  Mid Position  Full Forward

13. Suppression tests with 3-year-old dummy (Part 572, Subpart P) using the following indicated child restraints where a child restraint is required.
### Section C

<table>
<thead>
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<th>Full Rearward</th>
<th>Mid Position</th>
<th>Full Forward</th>
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<tr>
<td>Britax Roundabout 161</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Century Encore 4612</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Century STE 1000 4416</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Cosco Olympian 02603</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Rearward</td>
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<tr>
<td>Cosco Tourive 02519</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Evenflo Horizon V 425</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Rearward</td>
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<td>Evenflo Medalion 254</td>
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### Section D

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<th>Safety Belt System</th>
<th>Full Rearward</th>
<th>Mid Position</th>
<th>Full Forward</th>
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<td>Britax Roadster 9004</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
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<tr>
<td>Century Next Step 4920</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Cosco High Back Booster 02-442</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Evenflo Right Fit 245</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
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14. Suppression tests with Representative 3-year-old child using the following indicated child restraints where a child restraint is required. (Appendix H, Data Sheet 16H and 17H)

15. Suppression tests with 3-year-old dummy (Part 572, Subpart P) in the following positions:
- Sitting on seat with back against seat back (S22.2.2.1)
- Sitting on seat with back against reclined seat back (S22.2.2.2)
- Sitting on seat with back not against seat back (S22.2.2.3)
- Sitting on seat edge, spine vertical, hands by the child's side (S22.2.2.4)
- Standing on seat, facing forward (S22.2.2.5)
- Kneeling on seat facing forward (S22.2.2.6)
- Kneeling on seat facing rearward (S22.2.2.7)
- Lying on seat (S22.2.2.8)

16. Suppression tests with 3-year-old dummy (Part 572, Subpart P) in the following positions:
- Sitting on seat with back against seat back (S22.2.2.1)
- Sitting on seat with back against reclined seat back (S22.2.2.2)
- Sitting on seat with back not against seat back (S22.2.2.3)
- Sitting on seat edge, spine vertical, hands by the child's side (S22.2.2.4)
- Standing on seat, facing forward (S22.2.2.5)
- Kneeling on seat facing forward (S22.2.2.6)
- Kneeling on seat facing rearward (S22.2.2.7)
- Lying on seat (S22.2.2.8)

17. Suppression tests with 6-year-old dummy (Part 572, Subpart N) using the following indicated child restraints where a child restraint is required.

Section D
### Section D

<table>
<thead>
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<th>Product</th>
<th>Position</th>
<th>Test Position</th>
<th>Result</th>
</tr>
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<tbody>
<tr>
<td>Britax Roadster 9004</td>
<td>Full Rearward</td>
<td>Mid Position</td>
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<tr>
<td>Century Next Step 4920</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Cosco High Back Booster 92-442</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Evenflo Right Fit 245</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
</tbody>
</table>

19. Suppression tests with a 6-year-old dummy (Part 572, Subpart N) in the following positions:
- Sitting on seat with back against seat back (S22.2.2.1)
- Sitting on seat with back against reclined seat back (S22.2.2.2)
- Sitting on seat edge, spine vertical, hands by the child's side (S22.2.2.4)
- Sitting in the seat and leaning on the right front passenger door (S24.2.3)

20. Suppression tests with a representative 6-year-old child in the following positions:
- Sitting on seat with back against seat back (S22.2.2.1)
- Sitting on seat with back against reclined seat back (S22.2.2.2)
- Sitting on seat edge, spine vertical, hands by the child's side (S22.2.2.4)
- Sitting in the seat and leaning on the right front passenger door (S24.2.3)

21. Test of Reactivation of the Passenger Air Bag System with an Unbelted 5th percentile female dummy (S20.3, 22.3, S24.3). Perform this test after the following suppression tests:

22. Test of Reactivation of the passenger air bag system with a representative 5th percentile female (S20.3, 22.3, S24.3). Perform this test after the following suppression tests:

23. Low risk deployment test with a 12-month-old dummy (Part 572, Subpart R) using the following indicated child restraints:

#### Section B

<table>
<thead>
<tr>
<th>Product</th>
<th>Position</th>
<th>Test Position</th>
<th>Result</th>
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<tbody>
<tr>
<td>Britax Handle with Care 191</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Century Assura 4553</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Century Avarta SE 41630</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Century Smart Fit 4543</td>
<td>Full Rearward</td>
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<td>Cosco Ariva 02727</td>
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<td>Full Forward</td>
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<td>Cosco Opus 35 02830</td>
<td>Full Rearward</td>
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<td>Full Forward</td>
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<tr>
<td>Evenflo Discovery Adjust Right 212</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Evenflo First Choice 204</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Evenflo On My Way Position Right V 282</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Graco Infant 4457</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
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</tbody>
</table>

#### Section C

<table>
<thead>
<tr>
<th>Product</th>
<th>Position</th>
<th>Test Position</th>
<th>Result</th>
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<tbody>
<tr>
<td>Britax Roundabout '61</td>
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<td>Century Encore 4612</td>
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</tr>
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<td>Cosco Touriva 02519</td>
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<td>Mid Position</td>
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<td>Full Forward</td>
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<tr>
<td>Evenflo Modellion 254</td>
<td>Full Rearward</td>
<td>Mid Position</td>
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</table>
24. Low risk deployment test with 3-year-old dummy (Part 572, Subpart P) in the following positions
   Position 1
   Position 2

25. Low risk deployment test with 3-year-old dummy (Part 572, Subpart P) in the following positions
   Position 1
   Position 2

26. Low risk deployment test with 3-year-old dummy (Part 572, Subpart P) in the following positions
   Position 1
   Position 2

27. Impact Tests
   - Frontal Oblique - Test Speed:
     - Belted 50th male dummy driver and passenger (0 to 48 kmph) (S5.1.1(3))
     - 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 40 kmph) (S5.1.2(a)(1) or S5.1.2(0))

   - Frontal 0° - Test Speed: 39.3 kmph
     - Belted 50th male dummy driver (0 to 48 kmph) (S5.1.1(b)(1) or S5.1.1(a))
     - Belted 50th male dummy passenger (0 to 48 kmph) (S5.1.1(b)(1)) or S5.1.1(a)
     - Belted 5th female dummy driver (0 to 48 kmph) (S16.1(a))
     - Belted 5th female dummy passenger (0 to 48 kmph) (S16.1(a))
     - Belted 5th male dummy driver and passenger (0 to 56 kmph) (S5.1.1(b)(2))
     - Belted 5th male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a)(1))
     - Unbelted 50th male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a)(2) or S5.1.2(0))
     - Unbelted 50th male dummy passenger (32 to 40 kmph) (S5.1.2(a)(2)) or S5.1.2(b))
     - Unbelted 5th male dummy driver (32 to 40 kmph) (S16.1(b))
     - Unbelted 5th male dummy passenger (32 to 40 kmph) (S16.1(b))

   - 40% Offset 0° Belted 5th male dummy driver and passenger (0 to 49 kmph) (S18.1) - Test Speed:

28. Sled Test: Unbelted 50th male dummy driver and passenger (S13)

29. FMVSS 204 Indicant: Test

30. FMVSS 212 Test

31. FMVSS 218 Indicant Test

32. FMVSS 301 Frontal Test
DATA SHEET 2
REPORT OF VEHICLE CONDITION

Test Vehicle: 2003 Toyota Corolla  
NHTSA No.: C35107
Test Program: FMVSS 208 Compliance  
Test Date: 6/5/03

CONTRACT NO.  DTNH22-08-D-11055  
Date: 4/17/03
FROM (Lab and rep name): MGA Research Corporation
TO: NHTSA, CVSC (NVS-220)

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

MODEL YEAR/MAKE/MODEL/BODY STYLE: 2003 TOYOTA COROLLA 4 DOOR SDN
MANUFACTURE DATE: 03/03
NHTSA NO. C35107  
GVWR: 1626kg (3585 lbs)
BODY COLOR: SILVER  
GAWR (Fr): 855kg (1885 lbs)
VIN: 1NXBR32E33Z179225  
GAWR (Rr): 780kg (1720 lbs)

ODOMETER READINGS:  
ARRIVAL (miles): 43  
COMPLETION (miles): 47
PURCHASE PRICE: ($) 13,250
DEALER'S NAME: Frank Gentile Toyota, 6801 Washington Ave, Racine, WI 53406

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:  
   ___Yes   X 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
REPORT OF VEHICLE CONDITION AT THE COMPLETION OF TESTING

LIST OF FMVSS TESTS PERFORMED BY THIS LAB:  FMVSS 208, 212, 219, 301

VEHICLE:  2003 Toyota Corolla 4 Door Sedan  
NHTSA NO.  C35107

REMARKS:

Equipment that is no longer on the test vehicle as noted on previous page:
Spare tire, jack, trunk interior, RH rear tail light, hub covers, LH rear seat back, and headrests.

Explanation for equipment removal:
Components removed for instrumentation installation and to meet target weight.

Test Vehicle Condition:
Normal frontal impact damage

RECORDED BY:  Jeff Lewandowski  
DATE:  6/09/2003

APPROVED BY:  David Winkelbauer  
DATE:  6/16/2003

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**

<table>
<thead>
<tr>
<th>Test Vehicle:</th>
<th>2003 Toyota Corolla</th>
<th>NHTSA No.:</th>
<th>C35107</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Program:</td>
<td>FMVSS 208 Compliance</td>
<td>Test Date:</td>
<td>6/5/03</td>
</tr>
<tr>
<td>Test Technician:</td>
<td>Wayne Dahike</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Certification Label

<table>
<thead>
<tr>
<th>Manufacturer:</th>
<th>New United Motor Manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Manufacture:</td>
<td>03/03</td>
</tr>
<tr>
<td>VIN:</td>
<td>1NXBR32E33Z170225</td>
</tr>
<tr>
<td>Vehicle Certified As (Pass. Car/MPV/Truck/Bus):</td>
<td>Passenger Car</td>
</tr>
<tr>
<td>Front Axle GVWR:</td>
<td>855 kg (1885 lbs)</td>
</tr>
<tr>
<td>Rear Axle GVWR:</td>
<td>760 kg (1720 lbs)</td>
</tr>
<tr>
<td>Total GVWR:</td>
<td>1626 kg (3585 lbs)</td>
</tr>
</tbody>
</table>

### Tire Placard

<table>
<thead>
<tr>
<th>Not applicable, vehicle is not a passenger car and does not have a tire placard.</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is not a passenger car, but all or part of this information is still contained on a vehicle label and is reported here.</td>
</tr>
<tr>
<td>Vehicle Capacity Weight:</td>
</tr>
<tr>
<td>Designated Seating Capacity Front:</td>
</tr>
<tr>
<td>Designated Seating Capacity Rear:</td>
</tr>
<tr>
<td>Total Designated Seating Capacity:</td>
</tr>
<tr>
<td>Recommended Cold Tire Inflation Pressure Front:</td>
</tr>
<tr>
<td>Recommended Cold Tire Inflation Pressure Rear:</td>
</tr>
<tr>
<td>Recommended Tire Size:</td>
</tr>
</tbody>
</table>

Signature: [Signature]

Date: 6/2/03
DATA SHEET 4
REAR OUTBOARD SEATING POSITION SEAT BELTS

Test Vehicle: 2003 Toyota Corolla  
Test Program: FMVSS 208 Compliance  
Test Technician: Wayne Dahlke

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do all rear outboard seating positions have Type 2 seat belts?</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

If NO, describe the seat belt installed, the seat location, and any other information about the seat that would explain why a Type 2 seat belt was not installed.

REMARKS: NONE

Signature: [Signature]  
Date: 6/2/03
DATA SHEET 5
AIR BAG LABELS (§4.5.1)

Test Vehicle: 2003 Toyota Corolla  NHTSA No.: C35107
Test Program: FMVSS 208 Compliance  Test Date: 6/5/03
Test Technician: Wayne Dahike

1. Air bag maintenance label and owner's manual instructions: (§4.5.1(a))
   1.1 Does the manufacturer recommend periodic maintenance or replacement of the air bag?
     - Yes, go to 1.2
     - No – go to 2
   1.2 Does the vehicle have a label specifying air bag maintenance or replacement?
     - Yes – Pass
     - No – Fail
   1.3 Does the label contain one of the following?
     - Yes – Pass
     - No – Fail

Check applicable schedule:
- Schedule on label specifies month and year (Record date______)
- Schedule on label specified vehicle mileage (Record mileage______)
- Schedule on label specifies interval measured from date on certification label (Record interval______)

1.4 Is the label permanently affixed within the passenger compartment such that it cannot be removed without destroying or defacing the label or the survival?
   - Yes – Pass
   - No – Fail

1.5 Is the label lettered in English?
   - Yes – Pass
   - No – Fail

1.6 Is the label in block capitals and numerals?
   - Yes – Pass
   - No – Fail

1.7 Are the letters and numerals at least 3/32 inches high?
   - Yes – Pass
   - No – Fail

1.8 Does the owner's manual set forth the recommended schedule for maintenance or replacement?
   - Yes – Pass
   - No – Fail

2. Does the owner's manual: (§4.5.1(f))
   2.1 Include a description of the vehicle's air bag system in an easily understandable format?
      - Yes – Pass
      - No – Fail
2.2 Include a statement that the vehicle is equipped with an air bag and a lap/shoulder belt at the front outboard seating position?
- Yes — Pass
- No — Fail

2.3 Include a statement that the air bag is a supplement restraint at the front outboard seating position?
- Yes — Pass
- No — Fail

2.4 Include a statement that the air bag is a supplement restraint at the front outboard seating position?
- Yes — Pass
- No — Fail

2.5 Provide any necessary precautions regarding the proper positioning of occupants, including children, at seating positions equipped with air bags to ensure maximum safety protection for those occupants?
- Yes — Pass
- No — Fail

2.6 Explain that no objects should be placed over or near the air bag on the steering wheel or on the instrument panel, because any such objects could cause harm if the vehicle is in a crash severe enough to cause the air bag to inflate?
- Yes — Pass
- No — Fail

2.7 Is the vehicle certified to meet the requirements of S14.5, S15, S17, S19, S21, S23, and S25? (Obtain answer from COTR) (S4.5.1(f)(2))
- Yes — (Go to 2.7.1)
- No — (Go to 3.)

2.7.1 Explain the proper functioning of the advanced air bag system? (S4.5.1(f)(2))
- Yes — Pass
- No — Fail

2.7.2 Provide a summary of the actions that may affect the proper functioning of the system? (S4.5.1(f)(2))
- Yes — Pass
- No — Fail

2.7.3 Present and explain the main components of the advanced passenger air bag system? (S4.5.1(f)(2)(ii))
- Yes — Pass
- No — Fail

2.7.4 Explain how the components function together as part of the advanced passenger air bag system? (S4.5.1(f)(2)(ii))
- Yes — Pass
- No — Fail

2.7.5 Contain the basic requirements for proper operation, including an explanation of the actions that may affect the proper functioning of the system? (S4.5.1(f)(2)(iii))
- Yes — Pass
- No — Fail

2.7.6 Is the vehicle certified to the requirements of S19.2, S21.2, or 23.2 (automatic suppression)?
- Yes, continue with 2.7.6
- No, go to 2.7.7
2.7.6.1 Contain a complete description of the passenger air bag suppression system installed in the vehicle, including a discussion of any suppression zone? (§4.5.1(f)(2)(iv))
- Yes – Pass
- No – Fail

2.7.6.2 Discuss the telltale light, specifying its location in the vehicle and explaining when the light is illuminated?
- Yes – Pass
- No – Fail

2.7.7 Explain the interaction of the advanced passenger air bag system with other vehicle components, such as seat belts, seats or other components? (§4.5.1(f)(2)(v))
- Yes – Pass
- No – Fail

2.7.8 Summarize the expected outcomes when child restraint systems, children and small teenagers or adults are both properly and improperly positioned in the passenger seat, including cautionary advice against improper placement of child restraint systems? (§4.5.1(f)(2)(vii))
- Yes – Pass
- No – Fail

2.7.9 Provide information on how to contact the vehicle manufacturer concerning modifications for persons with disabilities that may affect the advanced air bag system? (§4.5.1(f)(2)(vii))
- Yes – Pass
- No – Fail

3. Sun Visor Air Bag Warning Label (§4.5.1(b)) Check only one of the following:
- X The vehicle is not certified to meet the requirements of S19, S21, and S23 (Obtain answer from COTR) (§4.5.1(b)(1)) Go to 3.1 and skip 3.2 and 3.3
- The vehicle is certified to meet the requirements of S19, S21, and S23 before 9/1/03. (Obtain answer from COTR) (§4.5.1(b)(2)) Go to 3.2 and skip 3.1 and 3.3
- The vehicle is certified to meet the requirements of S19, S21, and S23 on 9/1/03 or later. (Obtain answer from COTR) (§4.5.1(b)(3)) Go to 3.3 and skip 3.1 and 3.2

3.1 Vehicles not certified to meet the requirements of S19, S21, and S23.

3.1.1 Is the label permanently affixed (including permanent marking on the visor material or molding into the visor material) to either side of the sun visor at each front outboard seating position such that it cannot be removed without destroying or defacing it? (§4.5.1(b)(4))
- X Driver Side, Yes – Pass
- Driver Side, No – Fail
- X Passenger Side, Yes – Pass
- Passenger Side, No – Fail
3.1.2 Does the label conform in content to the label shown in either Figure 6A or 6B (Figure 6b is for vehicles with passenger air bag on-off switches), as appropriate, at each front outboard seating position? (S4.5.1(b)(i)) (Vehicles without back seats may omit the statement: "The back seat is the safest place for children" (S4.5.1(b)(1)(iv))

![Warning Label Diagram](image)

**Figure 6a: Sun Visor Label Visible When Visor is Down Position.**

![Warning Label Diagram](image)

**Figure 6b: Sun Visor Label Visible When Visor is Down Position.**

- **Driver Side, Yes - Pass**
- **Driver Side, No - Fail**
- **Passenger Side, Yes - Pass**
- **Passenger Side, No - Fail**

3.1.3 Is the label heading area yellow with the word "WARNING" and the alert symbol in black? (S4.5.1(b)(1)(i))

- **Driver Side, Yes - Pass**
- **Driver Side, No - Fail**
- **Passenger Side, Yes - Pass**
- **Passenger Side, No - Fail**

3.1.4 Is the message area white with black text? (S4.5.1(b)(1)(ii))

- **Driver Side, Yes - Pass**
- **Driver Side, No - Fail**
- **Passenger Side, Yes - Pass**
- **Passenger Side, No - Fail**

18
3.15 Is the message area at least 30 cm²? (S4.5.1(b)(1)(ii))
Driver Side: Length 11.5, Width 5.2
Passenger Side: Length 11.5, Width 5.2
Actual message area 59.8 cm²
X Driver Side, Yes – Pass
X Driver Side, No – Fail
X Passenger Side, Yes – Pass
X Passenger Side, No – Fail

3.16 Is the pictogram black with a red circle and slash on a white background? (S4.5.1(b)(2)(iii))
X Driver Side, Yes – Pass
X Driver Side, No – Fail
X Passenger Side, Yes – Pass
X Passenger Side, No – Fail

3.17 Is the pictogram at least 30 mm in diameter? (S4.5.1(b)(2)(iii))
Actual diameter 30 mm
X Driver Side, Yes – Pass
X Driver Side, No – Fail
X Passenger Side, Yes – Pass
X Passenger Side, No – Fail

3.2 Vehicles certified to meet the requirements of S19, S21, and S23 before 9/1/03.

3.2.1 Is the label permanently affixed (including permanent marking on the visor material or molding into the visor material) to either side of the sun visor at each front outboard seating position such that it cannot be removed without destroying or defacing the label or the sun visor? (S4.5.1(b)(2))
X Driver Side, Yes – Pass
X Driver Side, No – Fail
X Passenger Side, Yes – Pass
X Passenger Side, No – Fail
3.2.2 Does the label conform in content to the label shown in either Figure 9 or 11 at each front outboard seating position? (S4.5.1(b)(2)) (Vehicles without back seats may omit the statement: “The back seat is the safest place for children.” (S4.5.1(b)(2)(iv))) Vehicles without back seats or the back seat is too small to accommodate a rear-facing child restraint may omit the statement “Never put a rear-facing child seat in the front.” (S4.5.1(b)(2)(v))

![Figure 9](image)

**WARNING**

Even with advanced air bags

- Children can be killed or seriously injured by the air bag
- The back seat is the safest place for children
- Never put a rear-facing child seat in the front
- Please see owner's manual for more information about air bags

![Figure 10](image)

**WARNING**

Even with advanced air bags

- Children can be killed or seriously injured by the air bag
- The back seat is the safest place for children
- Never put a rear-facing child seat in the front
- Please see owner's manual for more information about air bags

- Driver Side, Yes – Pass
- Driver Side, No – Fail
- Passenger Side, Yes – Pass
- Passenger Side, No – Fail

3.2.3 Is the label heading area yellow with the word “WARNING” and the alert symbol in black? (S4.5.1(b)(2)(i))

- Driver Side, Yes – Pass
- Driver Side, No – Fail
- Passenger Side, Yes – Pass
- Passenger Side, No – Fail

3.2.4 Is the message area white with black text? (S4.5.1(b)(2)(ii))

- Driver Side, Yes – Pass
- Driver Side, No – Fail
- Passenger Side, Yes – Pass
- Passenger Side, No – Fail

20
3.2.5 Is the message area at least 30 cm²? (S4.5.1(b)(2)(ii))
- Driver Side: Length ________, Width ________
- Passenger Side: Length ________, Width ________
- Actual message area ________ cm²
  - Driver Side, Yes – Pass
  - Driver Side, No – Fail
  - Passenger Side, Yes – Pass
  - Passenger Side, No – Fail

3.2.6 Is the pictogram black on a white background? (S4.5.1(b)(2)(iii))
- Driver Side, Yes – Pass
- Driver Side, No – Fail
- Passenger Side, Yes – Pass
- Passenger Side, No – Fail

3.2.7 Is the pictogram at least 30 mm (1.2 inches) in length? (S4.5.1(b)(2)(iii))
- Driver Side: Length ________
- Passenger Side: Length ________
  - Driver Side, Yes – Pass
  - Driver Side, No – Fail
  - Passenger Side, Yes – Pass
  - Passenger Side, No – Fail

3.3 Vehicles certified to meet the requirements of S19, S21, and S23 on 9/1/03 and later. (S4.5.1(b)(3))

3.3.1 Is the label permanently affixed (including permanent marking on the visor material or molding into the visor material) to either side of the sun visor at each front outboard seating position such that it cannot be removed without destroying or defacing the label or the sun visor? (S4.5.1(b)(3))
- Driver Side, Yes – Pass
- Driver Side, No – Fail
- Passenger Side, Yes – Pass
- Passenger Side, No – Fail

3.3.2 Does the label conform in content to the label shown in either Figure 11 at each front outboard seating position? (S4.5.1(b)(2)) (Vehicles without back seats may omit the statement: “The back seat is the safest place for children.” (S4.5.1(b)(3)(v))) Vehicles without back seats or the back seat is too small to accommodate a rear-facing child restraint may omit the statement “Never put a rear-facing child seat in the front.” (S4.5.4(b)(3)(v))
3.3.3 Is the label heading area yellow with the word “WARNING” and the alert symbol in black? (S4.5.1(b)(3)(i))

- Driver Side, Yes – Pass
- Driver Side, No – Fail
- Passenger Side, Yes – Pass
- Passenger Side, No – Fail

3.3.4 Is the message area white with black text? (S4.5.1(b)(3)(ii))

- Driver Side, Yes – Pass
- Driver Side, No – Fail
- Passenger Side, Yes – Pass
- Passenger Side, No – Fail

3.3.5 Is the message area at least 30 cm²? (S4.5.1(b)(3)(ii))

- Driver Side: Length_________, Width_________
- Passenger Side: Length_________, Width_________
- Driver Actual message area__________ cm²
- Passenger Actual message area__________ cm²

3.3.6 Is the pictogram black on a white background? (S4.5.1(b)(3)(iii))

- Driver Side, Yes – Pass
- Driver Side, No – Fail
- Passenger Side, Yes – Pass
- Passenger Side, No – Fail

3.3.7 Is the pictogram at least 30 mm (1.2 inches) in length? (S4.5.1(b)(3)(iii))

- Driver Side: Length_________
- Passenger Side: Length_________
- Driver Side, Yes – Pass
3.4 Is the same side of the sun visor that contains the air bag warning label free of other information with the exception of the air bag maintenance label and/or the rollover-warning label? (§4.5.1(b)(6)(ii))

- [X] Driver Side, Yes – Pass
- [X] Driver Side, No – Fail
- [X] Passenger Side, Yes – Pass
- [X] Passenger Side, No – Fail

3.5 Is the sun visor free of other information about air bags or the need to wear seat belts with the exception of the air bag alert label and/or the rollover-warning label? (§4.5.1(b)(6)(ii))

- [X] Driver Side, Yes – Pass
- [X] Driver Side, No – Fail
- [X] Passenger Side, Yes – Pass
- [X] Passenger Side, No – Fail

3.6 Does the driver side visor contain a rollover-warning label on the same side of the visor as the air bag warning label?

- [ ] Yes, go to 3.6.1
- [X] No, go to 4 (skipping 3.6.1 through 3.6.3)

3.6.1 Are both the rollover-warning label and the air bag warning label surrounded by a continuous solid-lined border?

- [ ] Yes, go to 3.6.2 and skip 3.6.3
- [X] No, go to 3.6.3 and skip 3.6.2

3.6.2 Is the shortest distance from the border of the rollover label to the border of the air bag warning label at least 1 cm? (§75.105 (d)(1)(iv)(B))

- [ ] actual distance

3.6.3 Is the shortest distance from any of the lettering or graphics on the rollover-warning label to any of the lettering or graphics of the air bag warning label at least 3 cm? (§75.105 (d)(1)(iv)(A))

- [X] actual distance

4. Air Bag Alert Label (§4.5.1(c)) (A "Rollover Warning Label" or "Rollover Alert Label" may be on the same side of the driver's sun visor as the "Air Bag Alert Label." §75.105(c))

4.1 Is the sun visor warning label visible when the sun visor is in the stowed position?

- [X] If yes for driver and passenger, go to 5.
- [X] Driver Side, Yes – Pass
- [X] Driver Side, No – Fail
- [X] Passenger Side, Yes – Pass
4.2 Is the air bag alert label permanently affixed (including permanent marking on the visor material or molding into the visor material) to the sun visor at each front outboard seating position such that it cannot be removed without destroying or defacing the label or the sun visor? (54.5.1(c))

- Driver Side, Yes - Pass
- Driver Side, No - Fail
- Passenger Side, Yes - Pass
- Passenger Side, No - Fail

4.3 Is the air bag alert label visible when the visor is in the stowed position? (54.5.1(c))

- Driver Side, Yes - Pass
- Driver Side, No - Fail
- Passenger Side, Yes - Pass
- Passenger Side, No - Fail

4.4 Does the label conform in content to the label shown in Figure 6C? (54.5.1(c))

![Figure 6C](image)

4.5 Is the message area black with yellow text? (54.5.1(c)(1))

- Driver Side, Yes - Pass
- Driver Side, No - Fail
- Passenger Side, Yes - Pass
- Passenger Side, No - Fail

4.6 Is the message area at least 20 cm²? (54.5.1(c)(1))

- Driver Side: Length __________, Width __________
- Passenger Side: Length __________, Width __________
- Actual message area __________ cm²

- Driver Side, Yes - Pass
- Driver Side, No - Fail
4.7 Is the pictogram black with a red circle and slash on a white background? (S4.5.1(c)(2))

<table>
<thead>
<tr>
<th>Passenger Side, Yes – Pass</th>
<th>Passenger Side, No – Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driver Side, Yes – Pass</td>
<td>Driver Side, No – Fail</td>
</tr>
<tr>
<td>Passenger Side, Yes – Pass</td>
<td>Passenger Side, No – Fail</td>
</tr>
</tbody>
</table>

4.8 Is the pictogram at least 20 mm in diameter? (S4.5.1(c)(2))

<table>
<thead>
<tr>
<th>Driver Side Diameter ________ mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Side Diameter ________ mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Driver Side, Yes – Pass</th>
<th>Driver Side, No – Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Side, Yes – Pass</td>
<td>Passenger Side, No – Fail</td>
</tr>
</tbody>
</table>

5. Label on the Dashboard

5.1 Is the vehicle certified to meet the requirements of S16, S21, and S23? (Obtain answer from COTR) (S4.5.1(3)(2))

<table>
<thead>
<tr>
<th>Yes, go to 5.1.1 and skip 5.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, go to 5.2, skipping 5.1.1 through 5.1.6</td>
</tr>
</tbody>
</table>

5.1.1 Does the vehicle have a label on the dash or steering wheel hub? (S4.5.1(e)(2))

<table>
<thead>
<tr>
<th>Yes – Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>No – Fail</td>
</tr>
</tbody>
</table>

5.1.2 Is the label clearly visible from all front seating positions? (S4.5.1(e)(2))

<table>
<thead>
<tr>
<th>Yes – Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>No – Fail</td>
</tr>
</tbody>
</table>

5.1.3 Does the label conform in content to the label shown in Figure 9? (S4.5.1(e)(2))

<table>
<thead>
<tr>
<th>Yes – Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>No – Fail</td>
</tr>
</tbody>
</table>

5.1.4 Is the heading area yellow with black text? (S4.5.1(e)(2)(i))

<table>
<thead>
<tr>
<th>Yes – Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>No – Fail</td>
</tr>
</tbody>
</table>

5.1.5 Is the message white with black text? (S4.5.1(e)(2)(ii))

<table>
<thead>
<tr>
<th>Yes – Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>No – Fail</td>
</tr>
</tbody>
</table>

5.1.6 Is the message area at least 30 cm²? (S4.5.1(e)(2)(iii))

<table>
<thead>
<tr>
<th>Length __________, Width __________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual message area __________ cm²</td>
</tr>
</tbody>
</table>
5.2 Does the vehicle have a label on the dash or steering wheel hub? (S4.5.1(e)(1))
- Yes – Pass
- No – Fail

5.2.1 Is the label clearly visible from all front seating positions? (S4.5.1(e)(1))
- Yes – Pass
- No – Fail

5.2.2 Does the label conform in content to the label shown in Figure 7? (S4.5.1(e)(1)(iii))
Vehicles without back seats may omit the statement: "The back seat is the safest place for children." (S4.5.1(e)(2)(iii))
- Yes – Pass
- No – Fail

5.2.3 Is the heading area yellow with the word "WARNING" and the alert symbol in black? (S4.5.1(e)(1)(i))
- Yes – Pass
- No – Fail

5.2.4 Is the message white with black text? (S4.5.1(e)(1)(ii))
- Yes – Pass
- No – Fail

5.2.5 Is the message area at least 30 cm²? (S4.5.1(e)(1)(ii))
Length _____, Width _____
Actual message area _____ cm²
- Yes – Pass
- No – Fail

I certify that I have read and performed each instruction.

Signature: [Signature]

Date: 6/2/03
DATA SHEET 6
FMVSS 208 READINESS INDICATOR (S4.5.2)

Test Vehicle: 2003 Toyota Corolla  
NHTSA No.: C35107
Test Program: FMVSS 208 Compliance  
Test Date: 6/5/03
Test Technician: Wayne Dahike

An occupant restraint system that deploys in the event of a crash shall have a monitoring system with a readiness indicator. A totally mechanical system is exempt from this requirement. (11/8/94 legal interpretation to Lawrence F. Hennenger on behalf of Breed)

1. Is the system totally mechanical? If Yes, this data sheet is complete.
   - Yes
   - No

2. Describe the location of the readiness indicator: Left side of instrument panel

3. Is the readiness indicator clearly visible to the driver?
   - Yes – Pass
   - No – Fail

4. Is a list of the elements in the occupant restraint system, being monitored by the readiness indicator, provided on a label or in the owner’s manual?
   - Yes – Pass
   - No – Fail

5. Does the vehicle have an on-off switch for the passenger air bag?
   - If Yes, go to 6
   - If No, this form is complete.

6. Is the air bag readiness indicator off when the passenger air bag switch is in the off position?
   - Yes – Pass
   - No – Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: Wayne Dahike

Date: 6/2/03
DATA SHEET 7

PASSenger AIR BAG MANUAL CUT-OFF DEVICE (S4.5.4)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahike

1. Is the vehicle equipped with an on-off switch that deactivates the air bag installed at the right front outboard seating position?
   - Yes, go to 2
   - X No, this sheet is complete

2. Does the vehicle have any forward-facing rear designated seating positions? (S4.5.4(a))
   - Yes, go to 3
   - N/A, no rearward seating

3. Verification of the lack of room for a child restraint in the rear seat behind the driver’s seat. (S4.5.4(b))
   - N/A, no rearward seating

3.1 Position the seat’s adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position (S9.1.3)
   - N/A, no lumbar adjustment

3.2 Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.02)
   - N/A, no additional support adjustment

3.3 If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)
   - N/A, no independent fore-aft seat cushion adjustment

3.4 If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position (S16.2.10.3.1)
   - N/A, no independent seat cushion height adjustment

3.5 Put the seat in its full rearward position. (S16.2.10.3.1)
   - N/A, the seat does not have a fore-aft adjustment

3.6 If the seat height is adjustable, put it in the full down position. (S16.2.10.3.1)
   - N/A, no seat height adjustment

3.7 Draw a horizontal reference line on the side of the seat cushion.

3.8 Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, 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 full rearward.
   - N/A - the seat does not have a fore-aft adjustment.

3.9 Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position. (S8.1.2)
   - N/A - the seat does not have fore-aft adjustment.
Mid position

If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat:

3.10 If seat adjustments, other than fore-aft, are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal.

N/A – No adjustments

Angle of reference line as tested:

3.11 The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.3.1 (b) and S6.1.3)

N/A – No seat back angle adjustment

Manufacturers design seat back angle:

Tested seat back angle:

3.12 Is the driver seat a bucket seat?

Yes, go to 3.12.1 and skip 3.12.2

No, go to 3.12.2 and skip 3.12.1

3.12.1 Bucket Seats:

3.12.1.1 Locate and mark a vertical Plane B through the longitudinal centerline of the seat driver’s seat cushion. (S22.2.1.3) The longitudinal centerline of a bucket seat cushion is determined at the widest part of the seat cushion. Measure perpendicular to the longitudinal centerline of the vehicle.

Record the width of the seat:

Record the distance from the edge of the seat to Plane B:

3.12.1.2 Locate the longitudinal horizontal line in plane B that is tangent to the highest point of the rear seat cushion behind the driver’s seat. Measure along this line from the front of the seat back of the rear seat to the rear of the seat back of the driver’s seat.

Distance (mm):

Less than 720 mm – Pass

More than 720 mm – Fail

Go to 4

3.12.2 Bench seats (including split bench seats):

3.12.2.1 Locate and mark a vertical Plane B through the center of the steering wheel parallel to the vehicle longitudinal centerline.

3.12.2.2 Locate the longitudinal horizontal line in plane B that is tangent to the highest point of the rear seat cushion. Measure along this line from the front of the seat back of the rear seat to the rear of the seat back of the front seat.

Distance (mm):

Less than 720 mm – Pass

More than 720 mm – Fail

Go to 4

4. Does the device turn the air bag on and off using the vehicle's ignition key? (S4.5.4.2)

Yes – Pass
5. Is the on-off device separate from the ignition switch? (S.4.5.4.2)
   - Yes - Pass
   - No - Fail

6. Is there a telltale light that comes on when the passenger air bag is turned off? (S.4.5.4.2)
   - Yes - Pass
   - No - Fail

7. Telltale light (S.4.5.4.3)
   7.1 Is the light yellow? (S.4.5.4.3(a))
       - Yes - Pass
       - No - Fail
   7.2 Are the words "PASSENGER AIR BAG OFF" (S.4.5.4.3(b)) on the telltale?
       - Yes - Pass, go to 7.3
       - No - go to 7.2.2
   7.2.1 Within 25 mm of the telltale?
       - Yes - Pass
       - No - Fail
   7.3 Does the telltale remain illuminated while the air bag is turned off? (S.4.5.4.3(c)) (Leave the air bag off for 5 minutes.)
       - Yes - Pass
       - No - Fail

7.4 Is the telltale illuminated while the air bag is turned on? (S.4.5.4.3(d))
   - Yes - Pass
   - No - Fail

7.5 Is the telltale combined with the air bag readiness indicator? (S.4.5.4.3(e))
   - Yes - Pass
   - No - Fail

8.1 Does the owner's manual contain complete instructions on the operation of the on-off switch? (S.4.5.4.4(a))
   - Yes - Pass
   - No - Fail

8.2 Does the owner's manual contain a statement that the on-off switch should only be used when a member of one of the following risk groups is occupying the right front passenger seating position? (S.4.5.4.4(b))
   - Infants: there is no back seat
   - the rear seat is too small to accommodate a child restraint
   - there is a medical condition that must be monitored constantly
   - Children: there is no back seat aged
   - space is not always available in the rear seat
   - 1 to 12: there is a medical condition that must be monitored constantly
   - Medical: medical risk causes special risk for passenger
   - condition: greater risk for harm than with the air bag on
8.3 Does the owner's manual contain a warning about the safety consequences of using the on-off switch at other times?

[ ] Yes – Pass
[ ] No – Fail

REMARKS:  NONE

I certify that I have read and performed each instruction.

Signature:  [Signature]

Date:  6/2/03
DATA SHEET 8

LAP BELT LOCKABILITY

Passenger cars, trucks, buses, and multipurpose passenger vehicles with a GVWR of 10,000 pounds or less. (§7.1.1.5)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahike
NHTSA No.: C35107
Test Date: 6/5/03

Complete one of these forms for each designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver's seat (§7.1.1.5(a), and that has seat belt retractors that are not solely automatic locking retractors. (§7.1.1.5(c))

DESIGNATED SEATING POSITION: Front Passenger

[ ] N/A — no retractor is at this position

[ ] N/A — the retractor is an automatic locking retractor ONLY

[ X ] 1. Record test fore-aft seat position: Af
   (§7.1.1.5(c)(1)) (Any position is acceptable)

[ X ] 2. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle.
   (§7.1.1.5 (a))
   [ X ] Yes — Pass
   [ ] No — Fail

[ X ] 3. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT require inverting, twisting or deforming of the belt webbing. (§7.1.1.5 (a))
   [ X ] Yes — Pass
   [ ] No — Fail

[ X ] 4. Buckle the seat belt. (§7.1.1.5(c)(1))

[ X ] 5. Locate a reference point A on the seat belt buckle. (§7.1.1.5(c)(2))

[ X ] 6. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (§7.1.1.5(c)(2))

[ X ] 7. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?
   [ X ] Yes, go to 7.1
   [ ] No, go to 8

[ ] 7.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (§7.1.1.5(b))
   [ X ] Yes — Pass
   [ ] No — Fail

[ X ] 8. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner’s manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (§7.1.1.5(c)(2) & §7.1.1.5(c)(1))
9. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(3))

Measured distance between A and B (inches): 71 1/2

10. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))

11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in Figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(3))

Measured force application angle (Spec. 5-15 degrees): 10

12. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))

Measured distance between A and B (inches): 45 3/4

13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))

Record onset rate (lb/sec) (Spec. 10 to 50 lb/sec): (S7.1.1.5(c)(5)): 10

Measured distance between A and B (inches): (S7.1.1.5(c)(6)): 46 7/8

14. Subtract the measurement in 13 from the measurement in 12. Is the difference 2 inches or less? (S7.1.1.5(c)(7))

\[ 13 - 12 = 1/8 \]

Yes - Pass

No - Fail

15. Subtract the measurement in 9 from the measurement in 13. Is the difference 3 inches or more? (S7.1.1.5(c)(8))

\[ 9 - 13 = 24 5/8 \]

Yes - Pass

No - Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: [Signature]

Date: 6/2/03

Figure 5: Webbing Tension Pull Device
DATA SHEET 8

LAP BELT LOCAKABILITY

Passenger cars, trucks, buses, and multipurpose passenger vehicles with a GVWR of 10,000 pounds or less. (§7.1.1.5)

Test Vehicle: 2003 Toyota Corolla  NHTSA No.: C35107
Test Program: FMVSS 208 Compliance  Test Date: 6/5/03
Test Technician: Wayne Dahike

Complete one of these forms for each designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver’s seat (§7.1.1.5(a)), and that has seat belt retractors that are not solely automatic locking retractors. (§7.1.1.5(c))

[DESIGNATED SEATING POSITION: Left Rear Passenger]

☐ 1. N/A – no retractor is at this position
   ☑ 1. N/A – the retractor is an automatic locking retractor ONLY
   ☐ 1. Record test fore-aft seat position: Not Adjustable (§7.1.1.5(c)(1)) (Any position is acceptable)
   ☑ 2. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle. (§7.1.1.5(a))
      ☑ Yes – Pass
      ☐ No – Fail
   ☑ 3. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT require inverting, twisting or deforming of the belt webbing. (§7.1.1.5(a))
      ☑ Yes – Pass
      ☐ No – Fail
   ☑ 4. Buckle the seat belt. (§7.1.1.5(c)(1))
   ☑ 5. Locate a reference point A on the seat belt buckle. (§7.1.1.5(c)(2))
   ☑ 6. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (§7.1.1.5(c)(2))
   ☑ 7. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?
      ☑ Yes, go to 7.1
      ☐ No, go to 8
   ☑ 7.1 Does the vehicle owner’s manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (§7.1.1.5(b))
      ☑ Yes – Pass
      ☐ No – Fail
9. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))

Measured distance between A and B (inches): 63 1/2

10. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))

11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in Figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of no less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(b)(4))

Measured force application angle (Spec. 5-15 degrees): 10

12. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))

Measured distance between A and B (inches): 41 3/4

13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. At that speed in not more than 5 seconds. (If webbing sensitive emergency locking retractor are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))

Record onset rate (lb/sec) (spec. 10 to 50 lb/sec) (S7.1.1.5(c)(5)): 10

Measured distance between A and B (inches) (S7.1.1.5(c)(6)): 41 7/8

14. Subtract the measurement in 13 from the measurement in 12. Is the difference 2 inches or less? (S7.1.1.5(c)(7))

13 - 12 = 1 1/2

X Yes – Pass

X No – Fail

15. Subtract the measurement in 9 from the measurement in 13. Is the difference 3 inches or more? (S7.1.1.5(c)(8))

9 - 13 = 21 3/8

X Yes – Pass

X No – Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: [Signature]

Date: 6/2/03

Figure 5 - Webbing Tension Pull Device
DATA SHEET 8

LAP BELT LOCAKABILITY
Passenger cars, trucks, buses, and multipurpose passenger
Vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Test Vehicle: 2003 Toyota Corolla  
NHTSA No.: C35107  
Test Program: FMVSS 208 Compliance  
Test Date: 6/5/03  
Test Technician: Wayne Dahle

Complete one of these forms for each designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver's seat (S7.1.1.5(a)), and that has seat belt restraints that are not solely automatic locking restraints. (S7.1.1.5(c))

<table>
<thead>
<tr>
<th>DESIGNATED SEATING POSITION:</th>
<th>Center Rear Passenger</th>
</tr>
</thead>
</table>

- **N/A** – no retractor is at this position
- **N/A** – the retractor is an automatic locking retractor ONLY

1. **Record test fore-aft seat position: Not Adjustable**  
   (S7.1.1.5(c)(1)) (Any position is acceptable)

2. **Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle.**  
   (S7.1.1.5(a))
   - Yes – Pass
   - No – Fail

3. **Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT require inverting, twisting or deforming of the belt webbing.**  
   (S7.1.1.5(a))
   - Yes – Pass
   - No – Fail

4. **Buckle the seat belt.**  
   (S7.1.1.5(c)(1))

5. **Locate a reference point A on the seat belt buckle.**  
   (S7.1.1.5(c)(2))

6. **Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly.**  
   (S7.1.1.5(c)(2))

7. **Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?**
   - Yes, go to 7.1
   - No, go to 8

7.1 **Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system.**  
   (S7.1.1.5(b))
   - Yes – Pass
   - No – Fail

8. **Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system.**  
   (S7.1.1.5(c)(2) & S7.1.1.5(c)(1))
9. Measure and record the distance between points A and B along the longitudinal
centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly.
(S7.1.1.5(c)(2))

   Measured distance between A and B (inches): 62

10. Readjust the belt system so that the webbing between points A and B is at any length
    that is 5 inches or more shorter than the maximum length of the webbing.
    (S7.1.1.5(c)(3))

   Measured force application angle (Spec. 5-15 degrees): 10

11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds
    using the webbing tension pull device in Figure 5. Apply the load in a vertical plane
    parallel to the longitudinal axis of the vehicle and passing through the seating reference
    point of the designated seating position. Apply the preload in a horizontal direction
    toward the front of the vehicle with a force application angle of not less than 6 degrees
    nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))

12. Measure the length between points A and B along the longitudinal centerline of the
    webbing while the preload is being applied. (S7.1.1.5(c)(4))

   Measured distance between A and B (inches): 41 1/4

13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain
    the load in not more than 5 seconds. (If webbing sensitive emergency locking retractor
    are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the
    load at a rate less than the threshold value for lock-up specified by the manufacturer.)
    Maintain the load for at least 5 seconds. Measure and record the distance between
    points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))

   Record onset rate (lb/sec) (spec. 10 to 50 lb/sec)(S7.1.1.5(c)(5)): 10

14. Subtract the measurement in 13 from the measurement in 12. Is the difference 2 inches
    or less? (S7.1.1.5(c)(7))

   13 - 12 = 3/4
   [X] Yes - Pass
   [X] No - Fail

15. Subtract the measurement in 9 from the measurement in 13. Is the difference 3 inches
    or more? (S7.1.1.5(c)(8))

   9 - 13 = 20
   [X] Yes - Pass
   [X] No - Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: [Signature]

Date: 6/2/03

Figure 5: Webbing Tension Pull Device
DATA SHEET 8
LAP BELT LOCAKABILITY
Passenger cars, trucks, buses, and multipurpose passenger vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Test Vehicle: 2003 Toyota Corolla  NHTSA No.: C35107
Test Program: FMVSS 208 Compliance  Test Date: 6/5/03
Test Technician: Wayne Dahke

Complete one of these forms for each designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver's seat (S7.1.1.5(a)), and that has seat belt retractors that are not solely automatic locking retractors. (S7.1.1.5(c))

| DESIGNATED SEATING POSITION: Right Rear Passenger |

1. Record test fore-at seat position: Not Adjustable (S7.1.1.5(c)(1)) (Any position is acceptable)

2. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle. (S7.1.1.5(a))
   - [X] Yes - Pass
   - [ ] No - Fail

3. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT require inverting, twisting or deforming of the belt webbing. (S7.1.1.5(a))
   - [X] Yes - Pass
   - [ ] No - Fail

4. Buckle the seat belt. (S7.1.1.5(c)(1))

5. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))

6. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))

7. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?
   - [X] Yes, go to 7.1
   - [ ] No, go to 8

   7.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))
      - [X] Yes - Pass
      - [ ] No - Fail

8. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2) & S7.1.1.5(c)(1))
9. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))

Measured distance between A and B (inches): 63 3/4

10. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))

11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in Figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))

Measured force application angle (Spec. 5-15 degrees): 10

12. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))

Measured distance between A and B (inches): 49 1/2

13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking restraints are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))

Record onset rate (lb/sec) (spec. 10 to 50 lb/sec) (S7.1.1.5(c)(5)): 10

Measured distance between A and B (inches) (S7.1.1.5(c)(6)): 49 1/2

14. Subtract the measurement in 13 from the measurement in 12. Is the difference 2 inches or less? (S7.1.1.5(c)(7))

13 - 12 = 0

Yes – Pass
No – Fail

15. Subtract the measurement in 9 from the measurement in 13. Is the difference 3 inches or more? (S7.1.1.5(c)(8))

9 - 13 = 14 1/4

Yes – Pass
No – Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: [Signature]

Date: 6/2/03

Figure 6. Webbing Tension Pull Device
DATA SHEET 9
FMVSS 208 SEAT BELT WARNING SYSTEM CHECK (S7.3)

Test Vehicle: 2003 Toyota Corolla  
Test Program: FMVSS 208 Compliance  
Test Technician: Wayne Dahke

1. The occupant is in the driver’s seat.
2. The seat belt is in the stowed position.
3. The key is in the “on” or “start” position.
4. The time duration of the audible signal beginning with key “on” or “start” is
   Seconds: 6.0
5. The occupant is in the driver’s seat.
6. The seat belt is in the stowed position.
7. The key is in the “on” or “start” position.
8. The time duration of the warning light beginning with key “on” or “start” is
   Seconds: Stays On > 60 seconds
9. The occupant is in the driver’s seat.
10. The seat belt is in the latched position and with at least 4 inches of belt webbing
    extended.
11. The key is in the “on” or “start” position.
12. The time duration of the audible signal beginning with key “on” or “start” is
    Seconds: 0.0
13. The occupant is in the driver’s seat.
14. The seat belt is in the latched position and with at least 4 inches of belt webbing
    extended.
15. The key is in the “on” or “start” position.
16. The time duration of the warning light beginning with key "on" or "start" is
    Seconds: 0.0
17. Complete the following table with the data from 4, 8, 12, and 16 to determine which
    option is used.

<table>
<thead>
<tr>
<th>Warning light</th>
<th>Warning light specification</th>
<th>Audible signal</th>
<th>Audible signal specification*</th>
</tr>
</thead>
<tbody>
<tr>
<td>S7.3 (a)(1)</td>
<td>Belt latched &amp; key on or start</td>
<td>Item 18: 0.0</td>
<td>Item 12: 0.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0 seconds*</td>
<td>0 seconds**</td>
</tr>
<tr>
<td>S7.3 (a)(2)</td>
<td>Belt stowed &amp; key on or start</td>
<td>Item 8: Stays: On &gt; 60 seconds minimum</td>
<td>Item 4: 6.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>60 seconds</td>
<td>4 to 8 seconds</td>
</tr>
<tr>
<td></td>
<td>Item 16: 0 seconds</td>
<td>Item 12:</td>
<td>Item 4: 6.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0 seconds*</td>
<td>4 to 8 seconds</td>
</tr>
</tbody>
</table>

* 49 USCS 30124 does NOT allow an audible signal to operate for more than 8 seconds.
** 0 seconds means the light or audible signal are NOT permitted to operate under these conditions.
See 7/12/03 interpretation is Patrick Rader of Hogan and Harison
18. The seat belt warning system meets the requirements of (manufacturers may comply with either section)
   - X S7.3 (a)(1)
   - S7.3 (a)(2)
   - FAIL – does not meet the requirements of either option

19. Note wording of visual warning: (S7.3(a)(1) and S7.3(a)(2))
   - FAIL – does not use any of the above wording or symbol

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: [Signature]

Date: 6/2/03
DATA SHEET 10
BELT CONTACT FORCE ($7.4.3)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahike
NHTSA No.: C35107
Test Date: 6/5/03

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

**DESIGNATED SEATING POSITION:  Left Rear Passenger**

1. Does the vehicle incorporate a webbing tension-relieving device?
   - X Yes, this form is complete
   - X No, continue with this check sheet

2. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. ($8.1.3)
   - X N/A, no lumbar adjustment

3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. ($10.2.10.2)
   - X N/A, no additional support adjustment

4. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. ($16.2 10.2)
   - X N/A, no independent fore-aft seat cushion adjustment
   - No – Fail

5. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. ($16.2.10.3.1)
   - X N/A, no independent seat cushion height adjustment

6. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. ($16.2.10.3.1)
   - X N/A, the seat does not have a fore-aft adjustment

7. Put the seat in its full rearward position. ($16.2.10.3.1)
   - X N/A, no seat height adjustment

8. If the seat height is adjustable, put it in the full down position. ($16.2.10.3.1)
   - X N/A, the seat does not have a fore-aft adjustment

9. Draw a horizontal reference line on the side of the seat cushion.
   - X N/A, the seat does not have a fore-aft adjustment

10. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of mid-point), and R for full rearward.
   - Mid position
   - If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: Not Adjustable
11. Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position for this test. (S8.1.2)

X N/A, no adjustments

Reference line angle as tested:

X 12. If seat adjustments other than fore-aft are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2.1)

X N/A, no seat back angle adjustment

Manufacturer's design seat back angle: Not Adjustable

X Tested seat back angle: Not Adjustable

13. Position the test dummies according to dummy position placement instructions in Appendix B and include the positioning check sheets.

X 14. Fasten the seat belt latch.

X 15. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest.

X 16. Locate the point where the centerline of the upper torso belt webbing crosses the mid sagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Using a force measuring gage with a full scale range of no more than 1.5 pounds, measure the contact force perpendicular to the dummy's chest exerted by the belt webbing.

X Contact Force (lb): 0.5

X 0.6 to 0.7 pounds – Pass

X Greater than 0.7 pounds – Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: [Signature]

Date: 6/2/03
DATA SHEET 10
BELT CONTACT FORCE ($7.4.3)

Test Vehicle: 2003 Toyota Corolla  
Test Program: FMVSS 208 Compliance  
Test Technician: Wayne Dahike  
NHTSA No.: C35107  
Test Date: 9/5/03

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION: Center Rear Passenger

1. Does the vehicle incorporate a webbing tension-relieving device?
   [x] Yes, this form is complete
   [x] No, continue with this check sheet

2. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. ($8.1.3)
   [x] N/A, no lumbar adjustment

3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. ($16.2.10.2)
   [x] N/A, no additional support adjustment

4. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. ($16.2.10.2)
   [x] N/A, no independent fore-aft seat cushion adjustment
   [x] No - Fail

5. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. ($16.2.10.3.1)
   [x] N/A, no independent seat cushion height adjustment

6. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. ($16.2.10.3.1)
   [x] N/A, the seat does not have a fore-aft adjustment.

7. Put the seat in its full rearward position. ($16.2.10.3.1)
   [x] N/A, no seat height adjustment

8. If the seat height is adjustable, put it in the full down position. ($16.2.10.3.1)
   [x] N/A, the seat does not have a fore-aft adjustment

9. Draw a horizontal reference line on the side of the seat cushion.

10. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the midpoint), and R for full rearward.

   Mid position
   ... If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: Not Adjustable

44
11. Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position for this test. 
(S8.1.2)

12. N/A, no adjustments
Reference line angle as tested:

12. If seat adjustments other than fore-aft are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2.1)

12. N/A, no seat back angle adjustment
Manufacturer's design seat back angle: Not Adjustable
Tested seat back angle: Not Adjustable

13. Position the test dummies according to dummy position placement instructions in Appendix B and include the positioning check sheets.

14. Fasten the seat belt latch.

15. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest.

16. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. 
(S10.8) Using a force measuring gage with a full scale range of no more than 1.5 pounds, measure the contact force perpendicular to the dummy's chest exerted by the belt webbing.

Contact Force (lb): 0.6

16. 0.0 to 0.7 pounds – Pass

16. Greater than 0.7 pounds – Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: [Signature]

Date: 6/2/03
DATA SHEET 10
BELT CONTACT FORCE (57.4.3)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahike
NHTSA No.: C35107
Test Date: 6/5/03

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION: Right Rear Passenger

1. Does the vehicle incorporate a webbing tension-relieving device?
   Yes, this form is complete
   X No, continue with this check sheet

2. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (§8.1.3)
   X N/A, no lumbar adjustment

3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (§16.2.10.2)
   X N/A, no additional support adjustment

4. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (§16.2.10.2)
   X N/A, no independent fore-aft seat cushion adjustment
   X No – Fail

5. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (§16.2.10.3.1)
   X N/A, no independent seat cushion height adjustment

6. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (§16.2.10.3.1)
   X N/A, the seat does not have a fore-aft adjustment

7. Put the seat in its full rearward position. (§16.2.10.3.1)
   X N/A, no seat height adjustment

8. If the seat height is adjustable, put it in the full down position. (§16.2.10.3.1)

9. Draw a horizontal reference line on the side of the seat cushion.
   X N/A, the seat does not have a fore-aft adjustment:

10. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the midpoint), and R for full rearward.

   : Mid position
   : If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: Not Adjustable
1. Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position for this test. (S8.1.2)

12. If seat adjustments other than fore-aft are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2.1)

13. Position the test dummies according to dummy position placement instructions in Appendix B and include the positioning check sheets.

14. Faster the seat belt latch.

15. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest.

16. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.6) Using a force measuring gage with a full scale range of no more than 1.5 pounds, measure the contact force perpendicular to the dummy's chest exerted by the belt webbing.

Contact Force (lb): 0.5

0.0 to 0.7 pounds - Pass
Greater than 0.7 pounds - Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: Wayne Zahn

Date: 6/2/03
DATA SHEET 12
SEAT BELT RETRACTION (§7.4.5)

Test Vehicle: 2003 Toyota Corolla  
Test Program: FMVSS 208 Compliance  
Test Technician: Wayne Dahike

Test all front outboard seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

<table>
<thead>
<tr>
<th>DESIGNATED SEATING POSITION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>GVWR:</td>
</tr>
</tbody>
</table>

1. Is the vehicle a passenger car or walk-in van-type vehicle?
   - [x] Yes, this form is complete
   - [ ] No

2. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (§8.1.3)
   - [ ] N/A, no lumbar adjustment

3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (§16.2.10.2)
   - [ ] N/A, no additional support adjustment

4. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (§16.2.10.3.1)
   - [ ] N/A, no independent fore-aft seat cushion adjustment

5. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (§16.2.10.3.1)
   - [ ] N/A, no independent seat cushion height adjustment

6. Put the seat in its full rearward position.
   - [ ] N/A, the seat does not have a fore-aft adjustment

7. If the seat height is adjustable, put it in the full down position. (§8.1.2)
   - [ ] N/A, no seat adjustment

8. Draw a horizontal line on the side of the seat cushion.
9. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, 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 full rearward.
   - [ ] N/A, the seat does not have a fore-aft adjustment

10. Using only the controls that change the seat in the fore-aft direction, place the seat in the middle fore-aft position. (§8.1.2)

11. If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat:
   - [ ] N/A – no seat adjustment
Reference angle as tested:

12. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S8.1.3)

   - N/A - no seat back angle adjustment

   Manufacturer's design seat back angle:

   Tested seat back angle:

13. If adjustable, set the head restraint at the full up and full forward position. (S8.1.3) Any adjustment 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.

   - N/A - no head restraint adjustment

14. Place any adjustable seat belt anchorages at the vehicle manufacturer's nominal design position for a 50th percentile adult male occupant. (S8.1.3)

   - N/A - no adjustable upper seat belt anchorage

   Manufacturer's specified anchorage position:

   Tested anchorage position:

15. Is the driver seat a bucket seat?

   - Yes, go to 15.1 and skip 15.2.
   - No, go to 15.2 and skip 15.1

15.1 Bucket seats - Locate and mark a vertical Plane B through the longitudinal centerline of the seat. The longitudinal centerline of a bucket seat cushion is determined at the widest part of the seat cushion. Measure perpendicular to the longitudinal centerline of the vehicle.

   Record the width of the seat:

   Record the distance from the edge of the seat to Plane B.

15.2 Bench seats (including split bench seats):

   - Driver seat: Locate and mark a vertical Plane B through the center of the steering wheel parallel to the vehicle longitudinal centerline.
   - Passenger seat: Locate and mark a vertical longitudinal Plane B on the seat that is the same distance from the longitudinal centerline of the vehicle as the center of the steering wheel.

   Distance from the vehicle centerline to the center of the steering wheel:

   Distance from the vehicle centerline to Plane B:

16. Stow cutboard armrests that are capable of being stowed. (S7.4.5)

17. Remove the arms of a Subpart E dummy and place it in the seat such that the midsagittal plane is coincident with Plane B and the upper torso rests against the seat back. (S10.4.1.1 & S10.4.1.2)

18. Rest the thighs on the seat cushion

19. Position the H-point of the dummy within 0.5 inch of the vertical dimension and 0.5 inch of the horizontal dimension of a point 0.25 inch below the H-point determined by using the equipment and procedures specified in SAE J826 (APR 1980). (S10.4.2.1) Then measure the pelvic angle with respect to the horizontal using the pelvic angle gage. Adjust the dummy position until these three measurements are within the specifications. (S10.4.2.1 and S10.4.2.2)

   - Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
   - Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
   - Pelvic angle (20" to 25")
   - Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
Pelvic angle (20° to 25°) (S10.4.2.2)

20. Set the distance between the outboard knee clevis flange surfaces at 10.6 inches.

21. To the extent practicable keep the thighs and the legs in a vertical plane (S10.5) and rest the thighs on the seat cushion while resting the feet on the foorpan or toe board.

22. Fasten the seat belt around the dummy.

23. Remove all slack from the lap belt portion. (S10.6)

24. Pull the upper torso webbing out of the retractor and allow it to retract; repeat this four times. (S10.9)

25. Apply a 2 to 4 pound tension lead to the lap belt. (S10.9)

Pound load applied:

26. Is the belt system equipped with a tension relieving device?

   - Yes, continue
   - No, go to 26

26.1 Introduce the maximum amount of slack into the upper torso belt that is recommended by the vehicle manufacturer in the vehicle owner's manual. (S10.9). Go to 25.

27. Check the statement that applies to this test vehicle:

27.1 Check the statement that applies to this test vehicle:

The torso and lap belt webbing of the seat belt system automatically retracts to a stowed position when the adjacent vehicle door is in an open position and the seat belt latch plate is released.

   - Pass

27.2 The torso and lap belt webbing of the seat belt system automatically retracts when the seat belt latch plate is released.

   - Pass

27.3 Neither A or B apply

   - Fail

28. With the webbing and hardware in the stowed position are the webbing and hardware prevented from being pinched when the door is closed?

   - Yes - Pass

   - No - Fail

29. If this test vehicle has an open body (without doors) and has a belt system with a tension-relieving device, does the belt system fully retract when the tension-relieving device is deactivated?

   - N/A
   - Yes - Pass
   - No - Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: [Signature]

Date: 6/2/03
DATA SHEET 13
SEAT BELT GUIDES AND HARDWARE (S7.4.6)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahle
NHTSA No.: C35107
Test Date: 6/5/03

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION: Left Rear Passenger

1. Is the seat cushion movable so that the seat back serves a function other than seating? (S7.4.6.1(b))
   □ Yes, this form is complete
   □ No, go to 2

2. Is the seat removable? (S7.4.6.1(b))
   □ Yes, this form is complete
   □ No, go to 3

3. Is the seat movable so that the space formerly occupied by the seat can be used for a secondary function? (S7.4.6.1(b))
   □ Yes, this form is complete
   □ No, go to 4

4. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back? (S7.4.6.1(a))
   □ Yes, go to 5
   □ No, this form is complete

5. Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when bet hardware is intentionally pushed behind the seat by a vehicle occupant)? (S7.4.6.1(a))
   □ Yes – Pass
   □ No – Fail

   Identify the part(s) on top or above the seat.
   □ Seat belt latch plate
   □ Buckle
   □ Seat belt webbing

6. Are the remaining two seat belt parts accessible under normal conditions?
   □ Yes – Pass
   □ No – Fail

7. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (S7.4.6.2)
   □ Yes – Pass
   □ No – Fail

8. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat is moved to any position to which it is designed to be adjusted. (S7.4.6.2)
9. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat; when the seat back, if foldable, is folded forward as far as possible and then moved backward into position. (S7.4.6.2)
   - Yes – Pass
   - No – Fail

10. Is the inboard receptacle end of the seat belt assembly, installed in the front outboard designated seating position, accessible with the center armrest in any position to which it can be adjusted (without moving the armrest)? (S7.4.6.2)
   - Yes – Pass
   - No – Fail
   - N/A – Rear seat

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: 

Date: 6/2/03
DATA SHEET 13
SEAT BELT GUIDES AND HARDWARE (S7.4.6)

Test Vehicle: 2003 Toyota Corolla  
Test Program: FMVSS 208 Compliance  
Test Technician: Wayne Dahke

NHTSA No.: C35107  
Test Date: 6/5/03

Test seat belts except those in walk-in van-type vehicles and those at front cutboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION: Center Rear Passenger

1. Is the seat cushion movable so that the seat back serves a function other than seating? (S7.4.6.1(b))
   - Yes, this form is complete
   - X No, go to 2

2. Is the seat removable? (S7.4.6.1(b))
   - Yes, this form is complete
   - X No, go to 3

3. Is the seat movable so that the space formerly occupied by the seat can be used for a secondary function? (S7.4.6.1(b))
   - Yes, this form is complete
   - X No, go to 4

4. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back? (S7.4.6.1(a))
   - X Yes, go to 5
   - No, this form is complete

5. Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)? (S7.4.6.1(a))
   - X Yes – Pass
   - No – Fail
   - Identify the part(s) on top or above the seat.
     - Seat belt latch plate
     - X Buckle
     - X Seat belt webbing

6. Are the remaining two seat belt parts accessible under normal conditions?
   - X Yes – Pass
   - No – Fail

7. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (S7.4.6.2)
   - X Yes – Pass
   - No – Fail

8. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat is moved to any position to which it is designed to be adjusted. (S7.4.6.2)
9. The buckle and latch plate do not pass through the guides or conduits provided and fail behind the seat when the seat back, if foldable, is folded forward as far as possible and then moved backward into position. (57.4.6.2)
   - Yes — Pass
   - No — Fail

10. Is the inboard receptacle end of the seat belt assembly, installed in the front outboard designated seating position, accessible with the center armrest in any position to which it can be adjusted (without moving the armrest)? (57.4.6.2)
   - Yes — Pass
   - No — Fail
   - N/A — Rear seat

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: [Signature]

Date: 6/2/03
DATA SHEET 13
SEAT BELT GUIDES AND HARDWARE (S7.4.6)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahike
NHTSA No.: C35107
Test Date: 6/5/03

Test seat belts except those in walk-in van-type vehicles and those at front cutoutboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION: Right Rear Passenger

1. Is the seat cushion movable so that the seatback serves a function other than seating? (S7.4.6.1 (b))
   - Yes, this form is complete
   - No, go to 2
   X

2. Is the seat removable? (S7.4.6.1(b))
   - Yes, this form is complete
   - No, go to 3
   X

3. Is the seat movable so that the space formerly occupied by the seat can be used for a secondary function? (S7.4.6.1(b))
   - Yes, this form is complete
   - No, go to 4
   X

4. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back? (S7.4.6.1(a))
   - Yes, go to 5
   - No, this form is complete
   X

5. Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)? (S7.4.6.1(a))
   - Yes – Pass
   - No – Fail

   Identify the part(s) on top or above the seat.
   - Seat belt latch plate
   - Buckle
   - Seat belt webbing

   Yes – Pass
   No – Fail

6. Are the remaining two seat belt parts accessible under normal conditions?
   - Yes – Pass
   - No – Fail

7. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (S7.4.6.2)
   - Yes – Pass
   - No – Fail

8. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat is moved to any position to which it is designed to be adjusted. (S7.4.6.2)
9. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat back, if foldable, is folded forward as far as possible and then moved backward into position. (S7.4.6.2)
   - Yes - Pass
   - No - Fail

10. Is the inboard receptacle end of the seat belt assembly, installed in the front outboard designated seating position, accessible with the center armrest in any position to which it can be adjusted (without moving the armrest)? (S7.4.6.2)
   - Yes - Pass
   - No - Fail
   - N/A - Rear seat

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: [Signature]

Date: 6/2/03
DATA SHEET 14

MARKING OF REFERENCE POINTS FOR VARIOUS TEST POSITIONS AND POINTS

Test Vehicle: 2003 Toyota Corolla  
NHTSA No.: C35107
Test Program: FMVSS 208 Complianc  
Test Date: 6/5/03
Test Technician: Chris Novak

1. Driver Designated Seating Position:
   1.1 Position the seat’s adjustable lumbar supports so that the lumbar supports are in the lowest, retracted or deflated adjustment positions. (§16.2.10.1)
      X N/A - No lumbar adjustment
   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 (§16.2.10.2)
      X N/A - No additional support adjustment
   1.3 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.
   1.4 Draw a line (seat cushion reference line) through the seat cushion reference point.
   1.5 Using only the controls that primarily move the seat in the fore-and-aft direction, move the seat cushion reference point to the rearmost position.
   1.6 If the seat cushion adjusts fore-and-aft, independent of the seat back, use only the controls that primarily move the seat in the fore-and-aft direction to move the seat cushion reference point to the rearmost position (§16.2.10.3)
      X N/A - No independent fore-and-aft seat cushion adjustment
   1.7 Using any part of any control, other than the parts just used for fore-and-aft positioning, determine the range of angles of the seat cushion reference line and set the seat cushion reference line at the mid-angle.
      Maximum Angle: Zero Degrees
      Minimum Angle: Zero Degrees
      Mid-angle: Zero Degrees
   1.8 If the seat and/or seat cushion height is adjustable, use any part of any control other than those which primarily move the seat or seat cushion fore-and-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 1.7.
      X N/A - No seat height adjustment
   1.9 Using only the controls that primarily move the seat in the fore-and-aft direction, verify the seat is in the rearmost position.
   1.10 Using only the controls that primarily move the seat in the fore-and-aft direction, mark for future reference the fore-and-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.
   1.11 Use only the controls that primarily move the seat in the fore-and-aft direction to place the seat in the rearmost position.
   1.12 Using any controls, other than the controls that primarily move the seat and/or seat cushion in the fore-and-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.7.
   1.13 Using only the controls that primarily move the seat and/or seat cushion in the fore-and-aft direction, place the seat in the mid-foremost position.
1.14 Using any controls, other than the controls that primarily move the seat in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.7.

1.15 Using only the controls that change the seat in the fore-aft direction, place the seat in the foremost position.

1.16 Using any controls, other than the controls that primarily move the seat in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.7.

1.17 Visually mark for future reference the seat back angle, if adjustable, at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer.

N/A – No seat back angle adjustment

Manufacturer's design seat back angle: 5th Notch Rearward; 1st as One; 1.0° On Headrest Post

Actual seat back angle: 5th Notch Rearward; 1st as One; 0.9° on Headrest Post

1.18 Is the seat a bucket seat?

X Yes, go to 1.18.1 and skip 1.18.2
X No, go to 1.18.2 and skip 1.18.1

1.18.1 Bucket seats:

X Locate and mark for future reference the longitudinal centerline of the seat cushion.

The longitudinal centerline of a bucket seat cushion is determined at the widest part of the seat cushion. Measure perpendicular to the longitudinal centerline of the vehicle. (S16.3.1.10)

Record the width of the seat cushion: 520 mm
One half the width of the seat cushion is: 260 mm

1.18.2 Bench seats:

X Locate and mark for future reference the longitudinal line on the seat cushion that marks the longitudinal vertical plane through the centerline of the steering wheel.

2. Passenger Designated Seating Position

2.1 Is the seat adjustable independent of the driver seating position?

X Yes, go to 2.2
X No, go to 2.18

2.2 Position the seat's adjustable lumbar supports so that the lumbar supports are in the lowest, retracted or deflected adjustment positions (S16.2.10.1, S20.1.9.1, S22.1.7.1)

X N/A – No lumbar adjustment

2.3 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, S22.1.7.2)

X N/A – No additional support adjustment

2.4 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.

2.5 Draw a line (seat cushion reference line) through the seat cushion reference point.

2.6 Using only the controls that primarily move the seat in the fore-aft direction, move the seat cushion reference point to the rearmost position.

2.7 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, S20.1.9.3, S22.1.7.3)

X N/A – No independent fore-aft seat cushion adjustment.
2.8 Using any part of the control, other than the parts just used for fore-aft positioning, determine the range of angles of the seat cushion reference line and set the seat cushion reference line at the mid-angle.

Maximum Angle: Zero Degrees
Minimum Angle: Zero Degrees
Mid-angle: Zero Degrees

2.9 If the seat and/or seat cushion height is adjustable, use any part of any control other than those 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-range angle.

X N/A – No seat height adjustment

2.10 Using only the controls that primarily move the seat and/or seat cushion in the fore-aft direction, verify the seat is in the rearmost position.

2.11 Using only the controls that primarily move the seat in the fore-aft direction, mark for future reference 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.

2.12 Using only the controls that primarily move the seat in the fore-aft direction, place the seat in the rearmost position.

2.13 Using any controls, other than the controls that primarily move the seat in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 2.8.

X N/A – No seat height adjustment Go to 2.18

2.14 Using only the controls that primarily move the seat in the fore-aft direction, place the seat in the mid-fore-aft position.

2.15 Using any controls, other than the controls that primarily move the seat in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 2.8.

2.16 Using only the controls that change the seat in the fore-aft direction, place the seat in the foremost position.

2.17 Using any controls, other than the controls that primarily move the seat in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 2.8.

X 2.18 Visually mark for future reference the seat back angle, if adjustable, at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer.

X N/A – No seat back angle adjustment

X N/A – The seat back angle adjustment is controlled by the setting of the driver seat back angle.

Manufacturer's design seat back angle: 5th Notch Rearward; 1st as One; 1.0° On Headrest Post

Actual seat back angle: 5th Notch Rearward; 1st as One; 0.7° On Headrest Post

2.19 Is the seat a bucket seat?

X Yes, go to 2.19.1 and skip 2.19.2

X No, go to 2.19.2 and skip 2.19.1
2.19.1 Bucket seats:

- Locate and mark for future reference the longitudinal centerline of the seat cushion. (S20.2.1.3, S22.2.1.3) The longitudinal centerline of a bucket seat cushion is determined at the widest part of the seat cushion. Measure perpendicular to the longitudinal centerline of the vehicle. (S20.1.10)

  - Record the width of the seat cushion: 510 mm
  - One half the width of the seat cushion is: 255 mm

- Record the distance from the edge of the seat cushion to the longitudinal centerline of the seat cushion. (The vertical plane through this longitudinal centerline is Plane B for suppression.) 255 mm

2.19.2 Bench seats:

- Locate and mark for future reference 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. (S20.2.1.3, S22.2.1.3)

- Record the distance from the longitudinal centerline of the vehicle to the center of the steering wheel:

3. Head Restraints

- N/A, vehicle contains automatic head restraints
- N/A, there is no head restraint adjustment

3.1 Left Outboard

3.1.1 Adjust the head restraint to its lowest position. (S16.3.4.2)

3.1.2 Any adjustment 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.

3.1.3 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.

  - Vertical height of head restraint (mm): 190 mm
  - Mid-point height (mm): 95 mm

3.2 Right Outboard

3.2.1 Adjust the head restraint to its lowest position. (S16.3.4.2)

3.2.2 Any adjustment 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.

3.2.3 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.

  - Vertical height of head restraint (mm): 190 mm
  - Mid-point height (mm): 95 mm

4. Steering Wheel

4.1 Is the steering wheel adjustable up and down and/or in and out?

- Yes, go to 4.2
- No, this form is complete

4.2 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

4.3 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.

60
5. **Driver Low Risk Deployment**

- [X] N/A, no low risk deployment tests scheduled

5.1 Position the steering wheel so the front wheels are in the straight-ahead position. *(S26.2.1)*

5.2 Position any adjustable parts of the steering controls to the mid-position as determined in item 3 above. If a mid-position adjustment is not achievable, position the controls to the next lowest detent position. *(S26.2.1)*

5.3 Locate the vertical plane parallel to the vehicle longitudinal centerline through the geometric center of the opening through which the driver air bag deploys into the occupant compartment. This is referred to as "Plane E." *(Check determination method below.) (S26.2.6)*

- Plane E determined using manufacturer's information supplied by the COTR. *(Include manufacturer's information in the test report.) OR*
- Plane E determined by test lab personnel and approved by the COTR. *(Include supporting documentation in the test report.)*

<table>
<thead>
<tr>
<th>&quot;Plane E&quot; Measurement:</th>
<th>Ey (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measured:</td>
<td></td>
</tr>
<tr>
<td>Specified:</td>
<td></td>
</tr>
<tr>
<td>Verify Measured Equals Specified +/-6mm:</td>
<td></td>
</tr>
</tbody>
</table>

5.4 Locate the horizontal plane through the highest point of the air bag module cover. This is referred to as "Plane F." *(Check determination method below.) (S26.2.6)*

- Plane F determined using manufacturer's information supplied by the COTR. *(Include manufacturer's information in the test report.) OR*
- Plane F determined by test lab personnel and approved by the COTR. *(Include supporting documentation in the test report.)*

<table>
<thead>
<tr>
<th>&quot;Plane F&quot; Measurement:</th>
<th>Fz (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measured:</td>
<td></td>
</tr>
<tr>
<td>Specified:</td>
<td></td>
</tr>
<tr>
<td>Verify Measured Equals Specified +/-6mm:</td>
<td></td>
</tr>
</tbody>
</table>

6. **Passenger Low Risk Deployment - Planes C and D**

- [X] N/A, no low risk deployment tests scheduled

6.1 Locate the horizontal plane through the geometric center of the opening through which the right front air bag deploys into the occupant compartment. This is referred to as "Plane C." *(Check location method below.) (S22.4.1.3)*

- Plane C located using manufacturer's information supplied by the COTR. *(Include manufacturer's information in the test report.) OR*
- Plane C located by test lab personnel and approved by the COTR. *(Include supporting documentation in the test report.)*

<table>
<thead>
<tr>
<th>&quot;Plane C&quot; Measurement:</th>
<th>Cz (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measured:</td>
<td></td>
</tr>
<tr>
<td>Specified:</td>
<td></td>
</tr>
<tr>
<td>Verify Measured Equals Specified +/-6mm:</td>
<td></td>
</tr>
</tbody>
</table>
6.2 Locate the vertical plane parallel to the vehicle longitudinal centerline through the
geometric center of the opening through which the right front air bag deploys into the
occupant compartment. This is referred to as "Plane D." (Check determination method
below.) (S22.4.1.2)

☐ Plane D determined using manufacturer’s information supplied by the COTR.
(include manufacturer’s information in the test report.) OK
☐ Plane D determined by test lab personnel and approved by the COTR.
(include supporting documentation in the test report.)

<table>
<thead>
<tr>
<th>&quot;Plane D&quot; Measurement:</th>
<th>Dy (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measured:</td>
<td></td>
</tr>
<tr>
<td>Specified:</td>
<td></td>
</tr>
<tr>
<td>Verify Measured Equals Specified +/- 6mm:</td>
<td></td>
</tr>
</tbody>
</table>

6.3 Mark the intersection of Planes C and D on the instrument panel.

7. 5' Female Dummy
Mark a point on the chin of the dummy 40 mm below the center of the mouth. (Chin
Point) (S26.2.6)

8. 6-Year-Old Dummy
Locate and mark a point on the front of the dummy’s chest jacket on the midsagittal
plane which is 139 mm (5.5 in) ± 3 mm (± 0.1 in) along the surface of the skin down from
the top of the skin at the neck line. Designate this point as "Point 1." (S24.4.1.1)
☐ "Point 1" measurement (mm):

9. 3-Year-Old Dummy
Locate and mark a point on the front of the dummy’s chest jacket on the midsagittal
plane which is 114 mm (4.5 in) ± 3 mm (± 0.1 in) along the surface of the skin down from
the top of the skin at the neck line. Designate this point as "Point 1." (S22.4.1.1)
☐ "Point 1" measurement (mm ±/− 3 mm):

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: [Signature] Date: 5/2/03
DATA SHEET 30
VEHICLE WEIGHT, FUEL TANK, AND ATTITUDE DATA

Test Vehicle: 2003 Toyota Corolla  
NHTSA No.: C35107  
Test Program: FMVSS 208 Compliance  
Test Date: 6/5/03  
Test Technician: Wayne Dahle

<table>
<thead>
<tr>
<th>IMPACT ANGLE:</th>
<th>Zero Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELTED DUMMIES (YES/NO):</td>
<td>No</td>
</tr>
<tr>
<td>TEST SPEED:</td>
<td>32 to 40 kmph</td>
</tr>
<tr>
<td>DRIVER DUMMY:</td>
<td>6th female</td>
</tr>
<tr>
<td>PASSENGER DUMMY:</td>
<td>6th female</td>
</tr>
</tbody>
</table>

1. Fill the fuel tank to vehicle capacity.
2. Record the usable fuel tank capacity supplied by the COTR.
4. Record the fuel tank capacity supplied in the owner's manual.
6. Record the amount of fuel in the fuel tank: 16.8 liters (4.4 gallons).
7. Fill the transmission with transmission fluid to the satisfactory range.
8. Fill the coolant system to capacity.
9. Fill the engine with motor oil to the Max. mark on the dip stick.
10. Fill the brake reservoir with brake fluid to its normal level.
11. Fill the windshield washer reservoir to capacity.

*10. Inflated 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.

<table>
<thead>
<tr>
<th>Tire placard pressure:</th>
<th>RF: 30 psi</th>
<th>LF: 30 psi</th>
<th>RR: 30 psi</th>
<th>LR: 30 psi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner's manual pressure:</td>
<td>RF: 30 psi</td>
<td>LF: 30 psi</td>
<td>RR: 30 psi</td>
<td>LR: 30 psi</td>
</tr>
<tr>
<td>Actual inflated pressure:</td>
<td>RF: 30 psi</td>
<td>LF: 30 psi</td>
<td>RR: 30 psi</td>
<td>LR: 30 psi</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Right Front (kg):</th>
<th>340.2</th>
<th>Right Rear (kg):</th>
<th>220.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left Front (kg):</td>
<td>343.4</td>
<td>Left Rear (kg):</td>
<td>226.8</td>
</tr>
<tr>
<td>Total Front (kg):</td>
<td>683.6</td>
<td>Total Rear (kg):</td>
<td>447.7</td>
</tr>
<tr>
<td>% Total Weight:</td>
<td>60.4</td>
<td>% Total Weight:</td>
<td>39.6</td>
</tr>
<tr>
<td>UVW = TOTAL FRONT PLUS TOTAL REAR (KG):</td>
<td>1131.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.1 Mark a point on the vehicle above the center of each wheel.
12.2 Place the vehicle on a level surface.
12.3 Measure perpendicular to the level surface to the 4 points marked on the body and record the measurements.

| RF: 686 | LF: 686 | RR: 705 | LR: 703 |

13. Calculate the Rated Cargo and Luggage Weight (RCLW).
13.1 Does the vehicle have the vehicle capacity weight (VCW) on the certification label or the placecard?

13.2 VCW = Gross Vehicle Weight – UVW

   VCW = _______ - _______ = _______

13.3 VCW = 390 kg (860 lbs)

13.4 Does the certification or the placecard contain the Designated Seating Capacity (DSC)?

   Yes, go to 14.6

   No, go to 14.5 and skip 14.6

13.5 DSC = Total number of seat belt assemblies = _______

13.6 DSC = 5

13.7 RCLW = VCW – (68 kg x DSC) = 390kg – (68 kg x 5) = 50 kg

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

   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

14. Fully Loaded Weight (100% fuel full)

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

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

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

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

14.4 Record the vehicle weight at each wheel to determine the Fully Loaded Weight:

   | Right Front (kg): | 383.7 |
   | Right Rear (kg):  | 284.4 |
   | Left Front (kg):  | 385.6 |
   | Left Rear (kg):   | 290.8 |
   | Total Front (kg): | 769.3 |
   | Total Rear (kg):  | 575.2 |
   | % Total Weight:   | 57.2  |
   | % GVW:            | 47.3  |
   | % RCLW:           | 50.4  |
   | FULLY LOADED WEIGHT = TOTAL FRONT PLUS TOTAL REAR: | 1344.5 kg |

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

15.1 Place the vehicle on a level surface.

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

   RF: 667  LF: 668  RR: 670  LR: 569

16. Drain the fuel system

17. Run the engine until fuel remaining in the fuel delivery system is used and the engine stops.
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 94 percent of useable capacity.

<table>
<thead>
<tr>
<th>Fuel tank capacity x .94 =</th>
<th>50 liters (13.2 gallons) x .94 = 46.9 liters (12.4 gallons)</th>
</tr>
</thead>
</table>

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

20. Calculate the test weight range.

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

| 1337.3 kg | 1131.3kg | + 50.0kg | + 156.0kg |

20.2 Test Weight Range = Calculated Weight - (4.5 kg - 9 kg) 
Max. Test Weight = Calculated Test Weight - 4.5 kg = 1327.8 kg
Min. Test Weight = Calculated Test Weight - 9 kg = 1328.3 kg

21. Remove the RCLW from the cargo area.

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.

23. Vehicle Components Removed For Weight Reduction:
- Spare tire
- Jack
- Trunk interior
- RH rear tail light
- Hub covers
- LH rear seat back
- Headrests

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.

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

N/A

26. Weight of Ballast: 49.0 kg in spare tire well.

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.

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

<table>
<thead>
<tr>
<th>Right Front (kg): 369.7</th>
<th>Right Rear (kg): 291.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left Front (kg): 395.3</td>
<td>Left Rear (kg): 289.9</td>
</tr>
<tr>
<td>Total Front (kg): 765.0</td>
<td>Total Rear (kg): 581.1</td>
</tr>
<tr>
<td>% Total Weight: 57.0%</td>
<td>% Total Weight: 43.0%</td>
</tr>
<tr>
<td>% GVW: 52.6%</td>
<td>% GVW: 48.0%</td>
</tr>
<tr>
<td>(% GVW = Axle GVW divided by Vehicle GVW) TOTAL FRONT PLUS TOTAL REAR (kg): 1329.1</td>
<td></td>
</tr>
</tbody>
</table>

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

Yes
No, explain why not.
<table>
<thead>
<tr>
<th></th>
<th>29.</th>
<th>Test Weight Vehicle Attitude. (all dimensions in millimeters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>29.1</td>
<td>Place the vehicle on a level surface</td>
</tr>
<tr>
<td>X</td>
<td>29.2</td>
<td>Measure perpendicular to the level surface to the 4 points marked on the body (see 13 above) and record the measurements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RF: 671    LF: 669    RR: 673    LR: 669</td>
</tr>
</tbody>
</table>

|   | 30. | Summary of test attitude                                   |
| X | 30.1| AS DELIVERED:                                              |
|   |     | RF: 666    LF: 666    RR: 705     LR: 703                 |
|   |     | AS TESTED:                                                 |
|   |     | RF: 671    LF: 669    RR: 673    LR: 669                   |
|   |     | FULLY LOADED:                                              |
|   |     | RF: 667    LF: 668    RR: 670    LR: 869                   |
| X | 30.2| Is the "as tested" test attitude equal to or between the "fully loaded" and "as delivered" attitude? |
|   |     | Yes                                                       |
|   |     | No, explain why not.                                      |

REMARKS:

I certify that I have read and performed each instruction.

Signature: [Signature]

Date: 6/2/03
DATA SHEET 31

VEHICLE ACCELEROMETER LOCATION

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahlke
NHTSA No.: C35107
Test Date: 6/5/03

<table>
<thead>
<tr>
<th>IMPACT ANGLE:</th>
<th>Zero Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELTED DUMMY (YES/NO):</td>
<td>No</td>
</tr>
<tr>
<td>TEST SPEED:</td>
<td>X 32 to 40 kmph</td>
</tr>
<tr>
<td>DRIVER DUMMY:</td>
<td>5th female</td>
</tr>
<tr>
<td>PASSENGER DUMMY:</td>
<td>5th female</td>
</tr>
</tbody>
</table>

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.

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.

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.

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.

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

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.

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

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: NONE

I certify that I have read and performed each instruction.

Signature: Wayne Dahlke
Date: 6/3/03
VEHICLE ACCELEROMETER LOCATION
AND DATA SUMMARY

CENTERLINE OF FRONT WHEELS

ENGINE

ACCELEROMETER COORDINATE SYSTEM (POSITIVE DIRECTION SHOWN)

REAR SEAT CUSHION ASSY. FRONT ATTACHMENT BRACKET SUPPORT

TOP VIEW

LEFT SIDE VIEW

DIMENSION CORRESPONDING TO THE LETTERS "A" THROUGH "K" ARE
RECORDED IN THE TABLE ON THE FOLLOWING PAGE.
ACCELEROMETERS CORRESPONDING TO THE NUMBERS 1 THROUGH 8 ARE
SPECIFIED ON THE PRECEDING PAGE.
DATA SHEET 31

VEHICLE ACCELEROMETER LOCATION MEASUREMENTS

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>LENGTH (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PRETEST VALUES</td>
</tr>
<tr>
<td>A</td>
<td>1778</td>
</tr>
<tr>
<td>B</td>
<td>1778</td>
</tr>
<tr>
<td>C</td>
<td>3608</td>
</tr>
<tr>
<td>D</td>
<td>3752</td>
</tr>
<tr>
<td>E</td>
<td>3730</td>
</tr>
<tr>
<td>F</td>
<td>3730</td>
</tr>
<tr>
<td>G</td>
<td>2994</td>
</tr>
<tr>
<td>H</td>
<td>160</td>
</tr>
<tr>
<td></td>
<td>POST TEST VALUES</td>
</tr>
<tr>
<td>A</td>
<td>1778</td>
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<tr>
<td>B</td>
<td>1778</td>
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<tr>
<td>C</td>
<td>3586</td>
</tr>
<tr>
<td>D</td>
<td>3721</td>
</tr>
<tr>
<td>E</td>
<td>3717</td>
</tr>
<tr>
<td>F</td>
<td>3726</td>
</tr>
<tr>
<td>G</td>
<td>2994</td>
</tr>
<tr>
<td>H</td>
<td>160</td>
</tr>
</tbody>
</table>

REMARKS: NONE
DATA SHEET 32
PHOTOGRAPHIC TARGETS

Test Vehicle: 2003 Toyota Corolla  
Test Program: FMVSS 208 Compliance 
Test Technician: Chris Novak

<table>
<thead>
<tr>
<th>IMPACT ANGLE:</th>
<th>Zero Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELTED DUMMIES (YES/NO):</td>
<td>No</td>
</tr>
<tr>
<td>TEST SPEED:</td>
<td>X 32 to 40 kmph</td>
</tr>
<tr>
<td>DRIVER DUMMY:</td>
<td>5TH female</td>
</tr>
<tr>
<td>PASSENGER DUMMY:</td>
<td>5TH female</td>
</tr>
</tbody>
</table>

1. FMVS3 208 vehicle targeting requirements. (See Figures 28A and 28B)
   1.1 Targets A1 and A2 are on flat rectangular panels
   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.
       Distance between targets (mm): 125 mm
   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 A1 and A2. The center of each circular target is 100 mm from the one next to it.
       Distance between targets (mm): 125 mm
   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.
       Distance between the first and last circular targets (mm): 864 mm
   1.5 Firmly fix target A1 on the vehicle roof in the vertical longitudinal plane that is coincident with the mid sagittal plane of the driver dummy.
   1.6 Firmly fix target A2 on the vehicle roof in the vertical longitudinal plane that is coincident with the mid sagittal plane of the passenger dummy.
   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.
       Distance between targets (mm): 610 mm
   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.
       Distance between targets (mm): 610 mm
   1.9 Place tape with squares having alternating colors on the top portion of the steering wheel.
   1.10 Chalk the bottom portion of the steering wheel
   1.11 Is this an offset test?
   Yes, continue with this section
   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.
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)

2. Barrier Targeting

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.

2.2 Targets D1 and D2 are on a rectangular panel.

2.3 Three circular targets at least 80 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.

Distance between circular targets on D1 (mm): 125mm
Distance between circular targets on D2 (mm): 125mm

3. FMVSS 208 Dummy Targeting Requirements

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).

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).

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.

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.

4. FMVSS 204 Targeting Requirements

4.1 Is an FMVSS 204 indicant test ordered on the "COTR Vehicle Work Order?"

Yes, continue with this form

No, this form is complete. (Removed at manufacturer’s request with COTR approval)

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 80 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 80 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: NONE

I certify that I have read and performed each instruction.

Signature: [Signature] Date: 6/5/03
RESECTION PANEL TARGETING ALIGNMENT

RESECTION CONTROL POINTS PANEL

STEERING COLUMN TARGET B

A1  A2

STEERING WHEEL

REAR VIEW

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

LEFT SIDE VIEW
### DATA SHEET 33
#### CAMERA LOCATIONS

**Test Vehicle:** 2003 Toyota Corolla  
**Test Program:** FMVSS 208 Compliance  
**Time:** 12:28 p.m.  
**NHTSA No.:** C35107  
**Test Date:** 6/5/03

<table>
<thead>
<tr>
<th>CAMERA NO.</th>
<th>VIEW</th>
<th>X</th>
<th>Y</th>
<th>Z</th>
<th>ANGLE (deg.)</th>
<th>FILM PLANE TO HEAD TARGET</th>
<th>LENS (mm)</th>
<th>SPEED (fps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Real Time Left Side View</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td></td>
<td>13</td>
<td>24</td>
</tr>
<tr>
<td>2</td>
<td>Left Side View (3mirrors face to front seat backs)</td>
<td>-996</td>
<td>7783</td>
<td>1585</td>
<td>90</td>
<td>7237</td>
<td>25</td>
<td>1005</td>
</tr>
<tr>
<td>3</td>
<td>Left Side View (Driver)</td>
<td>-1354</td>
<td>8380</td>
<td>1520</td>
<td>90</td>
<td>7634</td>
<td>13</td>
<td>1020</td>
</tr>
<tr>
<td>4</td>
<td>Left Side View (3-post aimed toward center of steering wheel)</td>
<td>-4546</td>
<td>5100</td>
<td>1996</td>
<td></td>
<td></td>
<td>50</td>
<td>1053</td>
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<tr>
<td>5</td>
<td>Left Side View (Steering Column)</td>
<td>-1900</td>
<td>8166</td>
<td>1557</td>
<td>90</td>
<td>7620</td>
<td>25</td>
<td>1005</td>
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<tr>
<td>6</td>
<td>Left Side View (Steering Column)</td>
<td>-1874</td>
<td>8166</td>
<td>1023</td>
<td>90</td>
<td>7620</td>
<td>25</td>
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<tr>
<td>7</td>
<td>Right Side View (Overall)</td>
<td>-1852</td>
<td>-6745</td>
<td>1514</td>
<td></td>
<td></td>
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<tr>
<td>8</td>
<td>Right Side View (Passenger)</td>
<td>-1341</td>
<td>-8779</td>
<td>1492</td>
<td>90</td>
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<td>9</td>
<td>Right Side View (Angle)</td>
<td>-4789</td>
<td>-5626</td>
<td>1983</td>
<td></td>
<td></td>
<td>50</td>
<td>962</td>
</tr>
<tr>
<td>10</td>
<td>Right Side View (Front door)</td>
<td>-996</td>
<td>-7480</td>
<td>1406</td>
<td>90</td>
<td>6939</td>
<td>25</td>
<td>1031</td>
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<tr>
<td>11</td>
<td>Front View Windshield</td>
<td>452</td>
<td>0</td>
<td>2635</td>
<td></td>
<td></td>
<td>16</td>
<td>1015</td>
</tr>
<tr>
<td>12</td>
<td>Front View Driver</td>
<td>76</td>
<td>465</td>
<td>1643</td>
<td></td>
<td></td>
<td>13</td>
<td>1028</td>
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<tr>
<td>13</td>
<td>Front View Passenger</td>
<td>76</td>
<td>465</td>
<td>1643</td>
<td></td>
<td></td>
<td>13</td>
<td>1010</td>
</tr>
<tr>
<td>14</td>
<td>Overhead Barrier Impact View</td>
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<td></td>
<td>Not Used</td>
<td>Not Used</td>
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<td>15</td>
<td>Pit Camera Engine View</td>
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<td></td>
<td></td>
<td>13</td>
<td>1036</td>
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<td>16</td>
<td>Pit Camera Fuel Tank View</td>
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<td>0</td>
<td>-5000</td>
<td></td>
<td></td>
<td>13</td>
<td>990</td>
</tr>
</tbody>
</table>

* X - film plane to barrier face  
  Y - film plane to monorail centerline  
  Z - film plane to ground
Cámara posiciones para impactos frontales

Concreto de refugio

Barreira de concreto

Furacão de fotos coberta

Vista superior

Vista lateral

Cámara de tiempo real

MONORAIL

CAMERA POSICIONES PARA IMPACTOS FRONTAL

CONCRETE PAD

1 REAL TIME CAMERA

TEST VEH.

TOW ROAD

14, 15

MONORAIL

COVERED PHOTO PIT

LEFT SIDE VIEW
DATA SHEET 34
APPENDIX F
DUMMY POSITIONING PROCEDURES
FOR DRIVER TEST DUMMY CONFORMING TO SUBPART E OF PART 572

Test Vehicle: 2003 Toyota Corolla  
Test Program: FMVSS 208 Compliance  
Test Technician: Chris Novak  
NHTSA No.: C35107  
Test Date: 6/5/03

<table>
<thead>
<tr>
<th>IMPACT ANGLE:</th>
<th>Zero Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELTED DUMMIES (YES/NO):</td>
<td>No</td>
</tr>
</tbody>
</table>
| TEST SPEED: | X 32 to 40 kmph  
| | 0 to 48 kmph  
| | 0 to 56 kmph |
| DRIVER DUMMY: | 5th female  
| | 50th Male |
| PASSENGER DUMMY: | 5th female  
| | 50th Male |

1. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)

   X  N/A – No lumbar adjustment

2. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S20.1.8.2)

   X  N/A – No additional support adjustment

3. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S20.1.9.3)

   X  N/A – No independent fore-aft seat cushion adjustment

4. Use the seat markings determined during the completion of Data Sheet 14 to set the mid-fore-aft position, full down height position and the seat cushion angle. (S8.1.2)

   X  N/A – No seat back angle adjustment

5. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)

   X  Manufacturer's design seat back angle: 5th Notch Rearward; 1st as One; 1.0° On Headrest Post

6. If adjustable, set the head restraint at the full up and full forward position. Any adjustment 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. (S8.1.3)

   X  N/A – No head restraint adjustment

7. Place any adjustable seat belt anchorages at the vehicle manufacturer's nominal design position for a 50th percentile adult male occupant (S8.1.3)

   X  N/A – No adjustable upper seat belt anchorage (Unbelted Test)

   Manufacturer's specified anchorage position:

   Tested anchorage position:

8. Place the adjustable accelerator pedal in the full forward position.

   X  N/A – the accelerator pedal is not adjustable

9. Set the steering wheel hub at the geometric center of the full range of driving positions including any telescoping positions as determined in Data Sheet 14.

78
10. Place the dummy in the seat such that the midsagittal plane is coincident with the longitudinal seat cushion markings as determined in Item 1.18 of Data Sheet 14 and the upper torso rests against the seat back. (S10.4.1.1 & S10.4.1.2)

11. Rest the thighs on the seat cushion. (S10.5)

12. Position the H-point of the dummy within 0.5 inch of the vertical dimension and 0.5 inch of the horizontal dimension of a point 0.25 inch below the H-point determined by using the equipment and procedures specified in SAE J826 (APR 1980). (S10.4.2.1) Then measure the pelvic angle with respect to the horizontal using the pelvic angle gage. Adjust the dummy position until these three measurements are within the specifications. (S10.4.2.1 and S10.4.2.2)

0.080 Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)

0.236 Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)

23.2 Pelvic angle (20° to 25°)

13. Is the head level within ±0.5°? (S10.1)

X Yes, go to 14

13.1 Adjust the position of the H-point. (S10.1)

13.2 Is the head level within ±0.5°? (S10.1)

X Yes, recal the following, then go to 15.

X No, go to 13.3

X Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)

X Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)

23.2 Pelvic angle (20° to 25°) (S10.4.2.2)

13.3 Adjust the head angle. (S10.1)

13.4 Is the head level within ±0.5°? (S10.1)

X Yes, record the following, then go to 14

X No, go to 13.5

Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)

Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)

Pelvic angle (20° to 25°) (S10.4.2.2)

13.5 Adjust the neck bracket of the dummy the minimum amount necessary from the non-adjusted "0" setting until the head is level within ±0.5°. (S10.1)

Record the following, then go to 14

0.080 Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)

0.118 Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)

23.5 Pelvic angle (20° to 25°) (S10.4.2.2)

14. Set the distance between the outboard knee clevis flange surfaces at 10.6 inches. 10.6 measured distance (10.6 inches) (S10.5)

15. Can the right foot be placed on the accelerator?

X Yes, go to 15.1 and skip 15.2

X No, go to 15.2

15.1 To the extent practicable keep the right thigh and the leg in a vertical plane (S10.5) while resting the foot on the undepressed accelerator pedal with the rearmost point of the heel on the floor pan in the plane of the pedal. (S10.6.1.1)
15.2 Initially set the foot perpendicular to the leg and then place it as far forward as possible in the direction of the pedal centerline with the rearmost point of the heel resting on the floor pan. (S10.6.1.1)

15.2.1 Move the adjustable pedal to its most rearward position or until the right foot is flat on the pedal, whichever occurs first. (S10.6.1.1)

- N/A – the accelerator pedal is not adjustable

16. Does the vehicle have a foot rest?

- Yes, go to 16.1
- No, go to 16.2

16.1 With the left thigh and leg in a vertical plane, place the foot on the foot rest with the heel resting on the floor pan. (S10.6.1.2)

16.1.1 Is the left foot elevated above the right foot?

- Yes, go to 16.1.2 and position the foot off the foot rest
- No, go to 17

16.1.2 Check the ONLY one of the following that applies

- The foot reaches the toeboard without adjusting the foot or leg. To the extent practicable keep the left thigh and the leg in a vertical longitudinal plane (S10.5) and place the foot on the toeboard, skip 16.1.3 (S10.6.1.2)

- The foot reaches the toeboard but contacts the brake or clutch pedal and must be rotated to avoid pedal contact. To the extent practicable keep the left thigh and the leg in a vertical longitudinal plane (S10.5) and place the foot on the toeboard. The foot was rotated about the leg to avoid pedal contact, skip 16.1.3 (S10.6.1.2)

- The foot reaches the toeboard but contacts the brake or clutch pedal and the foot and leg must be rotated to avoid pedal contact. To the extent practicable keep the left thigh and the leg in a vertical longitudinal plane (S10.5) and place the foot on the toeboard. The foot was rotated about the leg and the leg was rotated outboard about the hip the minimum distance necessary to avoid pedal contact. skip 16.1.3 (S10.6.1.2)

- N/A – the foot does not reach the toeboard, go to 16.1.3

16.1.3 Check the ONLY one of the following that applies

- The foot did not contact the brake or clutch pedal. To the extent practicable keep the left thigh and the leg in a vertical longitudinal plane (S10.5). Set the foot perpendicular to the leg and place it as far forward as possible with the heel resting on the floor pan. (S10.6.1.2)

- The foot did contact the brake or clutch pedal and the foot was rotated to avoid contact. To the extent practicable keep the left thigh and the leg in a vertical longitudinal plane (S10.5). Set the foot perpendicular to the leg and place it as far forward as possible with the heel resting on the floor pan and rotate the foot the minimum amount to avoid pedal contact. (S10.6.1.2)

- The foot did contact the brake or clutch pedal and the foot was rotated about the leg and the leg was rotated outboard about the hip the minimum distance necessary to avoid pedal contact. Set the foot perpendicular to the leg and place it as far forward as possible with the heel resting on the floor pan and rotate the foot about the leg and the thigh and leg outboard about the hip the minimum distance necessary to avoid pedal contact. (S10.6.1.2)

17. Place the right upper arm adjacent to the torso with the centerline as close to a vertical plane as possible. (S10.2.1)

18. Is the driver seat belt used for this test?

- Yes, continue
- No, go to 19

18.1 Fasten the seat belt around the dummy.

18.2 Remove all slack from the lap belt portion. (S10.9)

18.3 Pull the upper torso webbing out of the retractor and allow it to retract, repeat this four times. (S10.8)
18.4 Apply a 2 to 4 pound tension load to the lap belt. (S10.9)

___ pound load applied

18.6 Is the belt system equipped with a tension-relieving device?

Yes, continue

No, go to 19

18.6 Introduce the maximum amount of slack into the upper torso belt that is recommended by the vehicle manufacturer in the vehicle owner's manual. (S10.9)

19. Place the left upper arm adjacent to the torso with the centerline as close to a vertical plane as possible. (S10.2.1)

20. Place the right hand with the palm in contact with the steering wheel at the rim's horizontal centerline and with the thumb over the steering wheel. (S10.3.1)

21. Place the left hand with the palm in contact with the steering wheel at the rim's horizontal centerline and with the thumb over the steering wheel. (S10.3.1)

22. Tape the thumb of each hand to the steering wheel by using masking tape with a width of 0.25 inch. The length of the tape shall only be enough to go around the thumb and steering wheel one time.

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: [Signature] Date: 8/5/03
APPENDIX F
DUMMY POSITIONING PROCEDURES
FOR PASSENGER TEST DUMMY CONFORMING TO SUBPART E OF PART 572

| IMPACT ANGLE: | Zero Degrees |
| BELTED DUMMIES (YES/NO): | No |
| TEST SPEED: | X 32 to 40 kmph 0 to 48 kmph 0 to 56 kmph |
| DRIVER DUMMY: | 5th female X 50th Male |
| PASSENGER DUMMY: | 5th female X 50th Male |

1. The seat is a bench seat for which the adjustments have already been made for the driver and there are no independent adjustments that can be made for the passenger. Go to 7.

2. Position the seat’s adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)
   - X N/A – No lumbar adjustment

3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S20.1.8.2)
   - X N/A – No additional support adjustment

4. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S20.1.9.3)
   - X N/A – No independent fore-aft seat cushion adjustment

5. Use the seat markings determined during the completion of Data Sheet 14 to set the mid-fore-aft position, full down height position and the seat cushion angle. (S8.1.2)

6. The seat back angle, if adjustable, is set at the manufacturer’s nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
   - X N/A – No seat back angle adjustment

    Manufacturer’s design seat back angle: 5th Notch Rearward; 1st as One; 10° On Headrest Post

7. Tested seat back angle 5th Notch Rearward; 1st as One; 0.7° On Headrest Post
   - X If adjustable, set the head restraint at the full up and full forward position. Any adjustment 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. (S8.1.3)
   - X N/A – No head restraint adjustment

8. Place any adjustable seat belt anchorages at the vehicle manufacturer’s nominal design position for a 50th percentile adult male occupant (S8.1.3)
   - X N/A – No adjustable upper seat belt anchorage: (Unbelted Test)

9. Manufacturer’s specified anchorage position:
   - Tested anchorage position:

   - X Place the dummy in the seat such that the mid-sagittal plane is coincident with the longitudinal seat cushion markings as determined in item 1.18 of Data Sheet 14 and the upper torso rests against the seat back. (S10.4.1.1 & S10.4.1.2)

10. Rest the thighs on the seat cushion. (S10.5)

11. Position the H-point of the dummy within 0.5 inch of the vertical dimension and 0.5 inch of the horizontal dimension of a point 0.25 inch below the H-point determined by using the equipment and procedures specified in SAE J826 (APR 1980). (S10.4.2.1) Then measure the pelvic angle with respect to the horizontal using the pelvic angle gage. Adjust the dummy position until these three measurements are within the specifications. (S10.4.2.1 and S10.4.2.2)
0.158 Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
0.080 Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)

23.7 Pelvic angle (20° to 25°) (S10.4.2.2)

12. Is the head level within ± 0.5°? (S10.1)
   Yes, go to 13
   No, go to 12.1

12.1 Adjust the position of the H-point, (S10.1)

12.2 Is the head level within ± 0.5°? (S10.1)
   Yes, record the following, then go to 13
   No, go to 12.3

12.3 Adjust the pelvic angle, (S10.1)

12.4 Is the head level within ± 0.5°? (S10.1)
   Yes, record the following, then go to 13
   No, go to 12.5

12.5 Adjust the neck bracket of the dummy, the minimum amount necessary from the non-adjusted "0" setting until the head is level within ± 0.5°. (S10.1)
   Record the following, then go to 14

0.118 Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
0.040 Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)

24.6 Pelvic angle (20° to 25°) (S10.4.2.2)

13. Set the distance between the outboard knee clevis flange surfaces at 10.8 inches.
   10.8 measured distance (10.6 inches) (S10.5)

14. Check the only one of the following that applies:

X To the extent practicable keep the left thigh and leg in a vertical plane and the right thigh and leg in a vertical plane, place the feet on the toeboard with the heels resting on the floor pan as close as possible to the intersection of the floor pan and toeboard.
   The feet cannot be placed flat on the toeboard. To the extent practicable keep the left thigh and leg in a vertical plane and the right thigh and leg in a vertical plane, set the feet perpendicular to the legs and place them as far forward as possible with the heel resting on the floor pan.
   The vehicle has a wheelhouse projection. To the extent practicable keep the left thigh and leg in a vertical plane and the right thigh and leg in a vertical plane, set the feet perpendicular to the legs and place them as far forward as possible with the heel resting on the floor pan. Do not set the feet on the wheelhouse projection.

X The vehicle has a wheelhouse projection and the feet cannot be placed on the toeboard. To the extent practicable keep the left thigh and leg in a vertical plane and the right thigh and leg in a vertical plane, set the feet perpendicular to the legs and place them as far forward as possible with the heel resting on the floor pan. Do not set the feet on the wheelchair projection.

15. Place the left upper arm in contact with the seat back and side of the torso. (S10.2.2)
16. Is the passenger seat belt used for this test?
   □ Yes, continue
   X No, go to 17

16.1 Fasten the seat belt around the dummy.

16.2 Remove all slack from the lap belt portion. (S10.9)

16.3 Pull the upper torso webbing out of the retractor and allow it to retract; repeat this four times. (S10.9)

16.4 Apply a 2 to 4 pound tension load to the lap belt. (S10.9)

16.5 Is the belt system equipped with a tension relieving device?
   □ Yes, continue
   □ No, go to 17

16.6 Introduce the maximum amount of slack into the upper torso belt that is recommended by the vehicle manufacturer in the vehicle owner’s manual. (S10.9). Go to 17.

X 17. Place the right upper arm in contact with the seat back and side of the torso. (S10.2.2)

X 18. Place the left hand palm in contact with the outside of the left thigh and the little finger in contact with the seat cushion. (S10.3.2)

X 19. Place the right hand palm in contact with the outside of the right thigh and the little finger in contact with the seat cushion. (S10.3.2)

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: __________________________ Date: 6/5/03
DATA SHEET 35
DUMMY MEASUREMENTS

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Chris Novak

NHTSA No.: C35107
Test Date: 6/5/03

DUMMY MEASUREMENTS FOR FRONT SEAT OCCUPANTS

- CD: Chest to Dash
- CS: Chest to Steering Wheel Hub
- HH: Head to Header
- HW: Head to Windshield
- HZ: Head to Roof
- KDA: Knee to Dash Angle
- KDL: Left Knee to Dash
- KDR: Right Knee to Dash
- NA: Nose to Rim Angle
- NR: Nose to Rim
- PA: Pelvic Angle
- RA: Rim to Abdomen
- SA: Seat Back Angle
- SCA: Steering Column Angle
- SH: Striker to H-Point
- SK: Striker to Knee
- ST: Striker to Head
- SWA: Steering Wheel Angle
- TA: Tibial Angle
- WA: Windshield Angle
### DATA SHEET 35

**DUMMY MEASUREMENTS**

- **Test Vehicle:** 2003 Toyota Corolla
- **Test Program:** FMVSS 208 Compliance
- **Test Technician:** Chris Novak
- **NHTSA No.:** C35107
- **Test Date:** 6/5/03

#### TEST DUMMY POSITION MEASUREMENTS

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<th>Passenger SN 340</th>
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<td>Angle (°)</td>
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<td>Steering Wheel Angle</td>
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<td>Arm to Door (Y)</td>
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Unbelted Test: TBI, PBU, and PBL are not applicable.
DATA SHEET 36
CRASH TEST

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Chris Novak
NHTSA No.: C35197
Test Date: 6/6/03

<table>
<thead>
<tr>
<th>IMPACT ANGLE:</th>
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<tr>
<td>BELTED DUMMIES (YES/NO):</td>
<td>No</td>
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<tr>
<td>TEST SPEED:</td>
<td>X 32 to 40 kmph</td>
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<tr>
<td>DRIVER DUMMY:</td>
<td>5th female</td>
</tr>
<tr>
<td>PASSENGER DUMMY:</td>
<td>5th female</td>
</tr>
</tbody>
</table>

1. Vehicle underbody painted
2. The speed measuring devices are in place and functioning.
3. The speed measuring devices are 1.3 m from the barrier (spec. 1.5m) and 30 cm from the barrier (spec. is 30 cm)
4. Convertible top is in the closed position.
5. N/A, not a convertible
6. Instrumentation and wires are placed so the motion of the dummies during impact is not affected.
7. 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.
   - 210 kpa front left tire
   - 210 kpa front right tire
   - 210 kpa rear left tire
   - 210 kpa rear right tire
8. 210 kpa specified on tire placard or in owner information
9. Dummy temperature meets requirements of section 12.2 of the test procedure.
10. Vehicle hood closed and latched
11. Transmission placed in neutral
12. Parking brake off
13. Ignition in the ON position
14. Doors closed and latched but not locked
15. Posttest zero and shunt calibration checks performed and recorded
16. Actual test speed 39.3 kmph
17. Vehicle rebound from the barrier 301 cm
18. Describe whether the doors open after the test and what method is used to open the doors.
   - Left Front Door: Door remained closed and latched; Door opened without tools
   - Right Front Door: Door remained closed and latched; Door opened without tools
   - Left Rear Door: Door remained closed and latched; Door opened without tools
   - Right Rear Door: Door remained closed and latched; Door opened without tools
19. Describe the contact points of the dummy with the interior of the vehicle.
Driver Dummy: Head to Air Bag and Headrest; Chest and Abdomen to Air Bag; Knees to Knee Bolster
Passenger Dummy: Head to Air Bag and Headrest; Chest and Abdomen to Air Bag; Knees to Glove Box

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: [Signature] Date: 6/5/03
DATA SHEET NO. 38
ACCIDENT INVESTIGATION DIVISION DATA

Test Vehicle: 2003 Toyota Corolla  
Test Program: FMVSS 208 Compliance  
Test Technician: Chris Novak

<table>
<thead>
<tr>
<th>IMPACT ANGLE:</th>
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<tbody>
<tr>
<td>BELTED DUMMIES (YES/NO):</td>
<td>No</td>
</tr>
<tr>
<td>TEST SPEED:</td>
<td>X 32 to 40 kmph</td>
</tr>
<tr>
<td>DRIVER DUMMY:</td>
<td>5th female</td>
</tr>
<tr>
<td>PASSENGER DUMMY:</td>
<td></td>
</tr>
</tbody>
</table>

Vehicle Year/Make/Model/Body Style: 2003 Toyota Corolla 4 Door Sedan
VIN: 1NXBR32E33Z170225
Wheelbase: 2600 mm
Build Date: 03/03
Vehicle Size Category: Compact
Test Weight: 1329.1 kg
Front Overhang: 906 mm
Overall Width: 1698 mm

Accelerometer Data
| Location: | As per measurements on Data Sheet 31 |
| Linearity: | >99.9% |

Integration Algorithm: Trapezoidal
Vehicle Impact Speed: 39.3 kmph
Time of Separation: 92 msec
Velocity Change: 44.8 kmph
**CRUSH PROFILE**

Collision Deformation Classification: 12FDEW6
Midpoint of Damage: Vehicle Longitudinal Centerline
Damage Region Length (mm): 1698
Impact Mode: Frontal Barrier

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<th>No.</th>
<th>Measurement Description</th>
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<th>Pre-Test</th>
<th>Post-Test</th>
<th>Difference</th>
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![Diagram of Crush Profile](image-url)
DATA SHEET 39
WINDSHIELD MOUNTING (FMVSS 212)

Test Vehicle: 2003 Toyota Corolla  
Test Program: FMVSS 208 Compliance  
Test Technician: Chris Novak

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<th>BELTED DUMMIES (YES/NO):</th>
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<table>
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<tr>
<th>TEST SPEED:</th>
<th>X 32 to 40 kmph</th>
<th>0 to 48 kmph</th>
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<table>
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<th>DRIVER DUMMY:</th>
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<tbody>
<tr>
<td>PASSENGER DUMMY:</td>
<td>50th Male</td>
<td>5th Female</td>
</tr>
</tbody>
</table>

1. Pre-Crash
   1.1 Describe from visual inspection how the windshield is mounted and describe any trim material.

   Retained with glue
   Rubber trim

   

2. Post Crash
   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 75%?

     Yes, Fail
     No, Pass

   2.6 Is total left side percent retention less than 75%?

     Yes, Fail
     No, Pass
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Pre-Crash (mm)</th>
<th>Post-Crash (mm)</th>
<th>Percent Retention (Post-Test + Pre-Crash)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1070</td>
<td>1070</td>
<td>100%</td>
</tr>
<tr>
<td>B</td>
<td>830</td>
<td>830</td>
<td>100%</td>
</tr>
<tr>
<td>C</td>
<td>1390</td>
<td>1390</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>2060</td>
<td>2060</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Right Side</th>
<th>Pre-Crash (mm)</th>
<th>Post-Crash (mm)</th>
<th>Percent Retention (Post-Test + Pre-Crash)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>1070</td>
<td>1070</td>
<td>100%</td>
</tr>
<tr>
<td>E</td>
<td>830</td>
<td>830</td>
<td>100%</td>
</tr>
<tr>
<td>F</td>
<td>1390</td>
<td>1390</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>2060</td>
<td>2060</td>
<td>100%</td>
</tr>
</tbody>
</table>

Indicate area of mounting failure: NONE

![Front View of Windshield](image)

**FRONT VIEW OF WINDSHIELD**

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: [Signature]

Date: 6/5/03
DATA SHEET 40

WINDSHIELD ZONE INTRUSION (FMVSS 219)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Chris Novak
NHTSA No.: C35107
Test Date: 5/5/03

<table>
<thead>
<tr>
<th>IMPACT ANGLE:</th>
<th>Zero Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELTED DUMMIES (YES/NO):</td>
<td>No</td>
</tr>
<tr>
<td>TEST SPEED:</td>
<td>X 32 to 40 kmph</td>
</tr>
<tr>
<td>DRIVER DUMMY:</td>
<td>5th female</td>
</tr>
<tr>
<td>PASSENGER DUMMY:</td>
<td>X 50th Male</td>
</tr>
</tbody>
</table>

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))

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))

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

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

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
<table>
<thead>
<tr>
<th>Item</th>
<th>Units</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>mm</td>
<td>1070</td>
</tr>
<tr>
<td>B</td>
<td>mm</td>
<td>495</td>
</tr>
<tr>
<td>C</td>
<td>mm</td>
<td>1390</td>
</tr>
<tr>
<td>D</td>
<td>mm</td>
<td>830</td>
</tr>
<tr>
<td>E</td>
<td>mm</td>
<td>500</td>
</tr>
<tr>
<td>F</td>
<td>mm</td>
<td>508</td>
</tr>
</tbody>
</table>

AREA OF PROTECTED ZONE FAILURES: NONE

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.

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
</tr>
</thead>
</table>

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

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
</tr>
</thead>
</table>

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: [Signature]
Date: 6/5/05
DATA SHEET 41
FUEL SYSTEM INTEGRITY (FMVSS 301)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Chris Novak
NHTSA No.: C35107
Test Date: 6/5/03

<table>
<thead>
<tr>
<th>TYPE OF IMPACT:</th>
<th>UNBELTED 40 KMPH: FLAT FRONTAL BARRIER</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME OF IMPACT:</td>
<td>12:28 PM</td>
</tr>
</tbody>
</table>

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
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:

<table>
<thead>
<tr>
<th>Test Phase</th>
<th>Rotation Time (sec.)</th>
<th>Hold Time (sec.)</th>
<th>Spillage (grams)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0° to 90°</td>
<td>187</td>
<td>300</td>
<td>0.0</td>
</tr>
<tr>
<td>90° to 180°</td>
<td>154</td>
<td>300</td>
<td>0.0</td>
</tr>
<tr>
<td>180° to 270°</td>
<td>137</td>
<td>300</td>
<td>0.0</td>
</tr>
<tr>
<td>270° to 360°</td>
<td>159</td>
<td>300</td>
<td>0.0</td>
</tr>
</tbody>
</table>
APPENDIX A

PHOTOGRAPHS
<table>
<thead>
<tr>
<th>Photo No.</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vehicle Certification Label</td>
<td>A-1</td>
</tr>
<tr>
<td>2</td>
<td>Tire Placard</td>
<td>A-2</td>
</tr>
<tr>
<td>3</td>
<td>Pre-Test Front View of Test Vehicle</td>
<td>A-3</td>
</tr>
<tr>
<td>4</td>
<td>Post-Test Front View of Test Vehicle</td>
<td>A-4</td>
</tr>
<tr>
<td>5</td>
<td>Pre-Test Rear View of Test Vehicle</td>
<td>A-5</td>
</tr>
<tr>
<td>6</td>
<td>Post-Test Rear View of Test Vehicle</td>
<td>A-6</td>
</tr>
<tr>
<td>7</td>
<td>Pre-Test Left Side View of Test Vehicle</td>
<td>A-7</td>
</tr>
<tr>
<td>8</td>
<td>Post-Test Left Side View of Test Vehicle</td>
<td>A-8</td>
</tr>
<tr>
<td>9</td>
<td>Pre-Test Right Side View of Test Vehicle</td>
<td>A-9</td>
</tr>
<tr>
<td>10</td>
<td>Post-Test Right Side View of Test Vehicle</td>
<td>A-10</td>
</tr>
<tr>
<td>11</td>
<td>Pre-Test Right Front Three-Quarter View of Test Vehicle</td>
<td>A-11</td>
</tr>
<tr>
<td>12</td>
<td>Post-Test Right Front Three-Quarter View of Test Vehicle</td>
<td>A-12</td>
</tr>
<tr>
<td>13</td>
<td>Pre-Test Left Front Three-Quarter View of Test Vehicle</td>
<td>A-13</td>
</tr>
<tr>
<td>14</td>
<td>Post-Test Left Front Three-Quarter View of Test Vehicle</td>
<td>A-14</td>
</tr>
<tr>
<td>15</td>
<td>Pre-Test Left Rear Three-Quarter View of Test Vehicle</td>
<td>A-15</td>
</tr>
<tr>
<td>16</td>
<td>Post-Test Left Rear Three-Quarter View of Test Vehicle</td>
<td>A-16</td>
</tr>
<tr>
<td>17</td>
<td>Pre-Test Right Rear Three-Quarter View of Test Vehicle</td>
<td>A-17</td>
</tr>
<tr>
<td>18</td>
<td>Post-Test Right Rear Three-Quarter View of Test Vehicle</td>
<td>A-18</td>
</tr>
<tr>
<td>19</td>
<td>Pre-Test Windshield View</td>
<td>A-19</td>
</tr>
<tr>
<td>20</td>
<td>Pre-Test Engine Compartment View</td>
<td>A-20</td>
</tr>
<tr>
<td>21</td>
<td>Post-Test Engine Compartment View</td>
<td>A-21</td>
</tr>
<tr>
<td>22</td>
<td>Pre-Test Fuel Filler Cap View</td>
<td>A-22</td>
</tr>
<tr>
<td>23</td>
<td>Pre-Test Fuel Filler Cap View (Fuel Door Closed)</td>
<td>A-23</td>
</tr>
<tr>
<td>24</td>
<td>Post-Test Fuel Filler Cap View</td>
<td>A-24</td>
</tr>
<tr>
<td>25</td>
<td>Pre-Test Front Underbody View</td>
<td>A-25</td>
</tr>
<tr>
<td>26</td>
<td>Post-Test Front Underbody View</td>
<td>A-25</td>
</tr>
<tr>
<td>27</td>
<td>Pre-Test Mid Underbody</td>
<td>A-27</td>
</tr>
<tr>
<td>28</td>
<td>Pre-Test Mid Underbody</td>
<td>A-28</td>
</tr>
<tr>
<td>29</td>
<td>Pre-Test Rear Underbody View</td>
<td>A-29</td>
</tr>
<tr>
<td>30</td>
<td>Post-Test Rear Underbody View</td>
<td>A-30</td>
</tr>
<tr>
<td>31</td>
<td>Pre-Test Driver Dummy Front View (head position)</td>
<td>A-31</td>
</tr>
</tbody>
</table>
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PRE-TEST

40 MILE FRONT
2003 TOYOTA COROLLA
C35107 JUNE 5, 2001
NGA RESEARCH CO.
PRE-TEST

40 KMPH FRONTAL
2003 TOYOTA COROLLA
C35107 JUNE 5, 2003
MGA RESEARCH CORP.
POST-TEST
40 KMPH FRONTAL
2003 TOYOTA COROLLA
C35107 JUNE 5, 2003
MGA RESEARCH CORP.
APPENDIX B

DUMMY AND VEHICLE RESPONSE DATA TRACES
<table>
<thead>
<tr>
<th>Figure No.</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Driver Head X Acceleration vs. Time</td>
<td>B-1</td>
</tr>
<tr>
<td>2</td>
<td>Driver Head Y Acceleration vs. Time</td>
<td>B-2</td>
</tr>
<tr>
<td>3</td>
<td>Driver Head Z Acceleration vs. Time</td>
<td>B-3</td>
</tr>
<tr>
<td>4</td>
<td>Driver Head Resultant Acceleration vs. Time</td>
<td>B-4</td>
</tr>
<tr>
<td>5</td>
<td>Driver Neck Force X vs. Time</td>
<td>B-5</td>
</tr>
<tr>
<td>6</td>
<td>Driver Neck Force Y vs. Time</td>
<td>B-6</td>
</tr>
<tr>
<td>7</td>
<td>Driver Neck Force Z vs. Time</td>
<td>B-7</td>
</tr>
<tr>
<td>8</td>
<td>Driver Neck Moment X vs. Time</td>
<td>B-8</td>
</tr>
<tr>
<td>9</td>
<td>Driver Neck Moment Y vs. Time</td>
<td>B-9</td>
</tr>
<tr>
<td>10</td>
<td>Driver Neck Moment Z vs. Time</td>
<td>B-10</td>
</tr>
<tr>
<td>11</td>
<td>Driver Chest X Acceleration vs. Time</td>
<td>B-11</td>
</tr>
<tr>
<td>12</td>
<td>Driver Chest Y Acceleration vs. Time</td>
<td>B-12</td>
</tr>
<tr>
<td>13</td>
<td>Driver Chest Z Acceleration vs. Time</td>
<td>B-13</td>
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<tr>
<td>14</td>
<td>Driver Chest Resultant Acceleration vs. Time</td>
<td>B-14</td>
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<tr>
<td>15</td>
<td>Driver Chest Displacement vs. Time</td>
<td>B-15</td>
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<tr>
<td>16</td>
<td>Driver Left Femur Force vs. Time</td>
<td>B-16</td>
</tr>
<tr>
<td>17</td>
<td>Driver Right Femur Force vs. Time</td>
<td>B-17</td>
</tr>
<tr>
<td>18</td>
<td>Passenger Head X Acceleration vs. Time</td>
<td>B-18</td>
</tr>
<tr>
<td>19</td>
<td>Passenger Head Y Acceleration vs. Time</td>
<td>B-19</td>
</tr>
<tr>
<td>20</td>
<td>Passenger Head Z Acceleration vs. Time</td>
<td>B-20</td>
</tr>
<tr>
<td>21</td>
<td>Passenger Head Resultant Acceleration vs. Time</td>
<td>B-21</td>
</tr>
<tr>
<td>22</td>
<td>Passenger Neck Force X vs. Time</td>
<td>B-22</td>
</tr>
<tr>
<td>23</td>
<td>Passenger Neck Force Y vs. Time</td>
<td>B-23</td>
</tr>
<tr>
<td>24</td>
<td>Passenger Neck Force Z vs. Time</td>
<td>B-24</td>
</tr>
<tr>
<td>25</td>
<td>Passenger Neck Moment X vs. Time</td>
<td>B-25</td>
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<td>26</td>
<td>Passenger Neck Moment Y vs. Time</td>
<td>B-26</td>
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<tr>
<td>27</td>
<td>Passenger Neck Moment Z vs. Time</td>
<td>B-27</td>
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<tr>
<td>28</td>
<td>Passenger Chest X Acceleration vs. Time</td>
<td>B-28</td>
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<tr>
<td>29</td>
<td>Passenger Chest Y Acceleration vs. Time</td>
<td>B-29</td>
</tr>
<tr>
<td>30</td>
<td>Passenger Chest Z Acceleration vs. Time</td>
<td>B-30</td>
</tr>
</tbody>
</table>
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Figure No. 34.   Passenger Right Femur Force vs. Time  B-34
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Figure No. 47.   Barrier Force – Lower Center vs. Time  B-47
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Figure No. 49.   Barrier Force – Contact vs. Time  B-49
Test Desc: 40 KMPH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
TestNumber: B03052
Test Date: 6/5/2003

Channel Name: DRIVER HEAD X
Filter: CFC 1000
File Name: DHeadInCGAcXTo
Speed: 24.4 mph
NHTSA #: C35107

Maximum: 1.6 G's
Time: 21.7 ms

Minimum: -31.5 G's
Time: 90.7 ms

Value at T0: -0.0 G's

Plotted By: S. Agarwal

MGA Research Corp
5000 Warren Road,
Burlington, WI 53105
Ph: 262-763-2705
Fax: 262-763-0934
Test Desc: 40 KMHP Frontal
Component: 2003 Toyota Corolla 4 Door
Test Number: B03062
Test Date: 6/5/2003

Chn Name: DRIVER NECK FY
Filter: CFC 1000
File Name: DNeckInMiFoYTo
Speed: 24.4 mph
NHTSA #: C35107

Maximum: 171.6 N
Time: 152.6 ms
Minimum: -189.6 N
Time: 100.9 ms
Value at T0: -1.7 N

Plotted By: S. Agarwal
Test Desc: 40 KMPH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
Test Number: B03062
Test Date: 6/5/2003

ChnName: DRIVER CHEST X
Filter: CFC 180
File Name: DChstInMiAcXCo
Speed: 24.4mph
NHTSA #: C35107

Plot by: S. Agarwal

Maximum: 2.9 G's
Time: 139.7 ms

Minimum: -39.2 G's
Time: 94.4 ms

Value at T0: 0.0 G's
Test Desc: 40 KMPH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
Test Number: B03062
Test Date: 6/5/2003

ChnName: DRIVER CHEST Y
Filter: CFC 180
File Name: DChstnMACYCo
Speed: 24.4 mph
NHTSA #: C35107

Maximum: 3.8 G's
Time: 109.8 ms
Minimum: -1.2 G's
Time: 78.2 ms
Value at T0: 0.0 G's

Plotted By: S. Agarwal
Test Desc: 40 KMHP FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
Test Number: B03062
Test Date: 6/5/2003

ChnName: DRIVER CHEST Z
Filter: CFC 180
File Name: DChstnM1AcZCo
Speed: 24.4mph
NHTSA #: C35107

Maximum: 13.1 G's
Time: 86.8 ms
Minimum: -3.5 G's
Time: 58.3 ms
Value at T0: 0.1 Gs

Plotted By: S. Agarwal

MGA Research Corp
5000 Warren Road,
Burlington, WI 53105
Ph #: 262-763-2705
Fax #: 262-763-0934
Test Desc: 40 KMHP FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
Test Number: B03062
Test Date: 6/5/2003
Speed: 24.4 mph
NHTSA #: C35107

ChnName: DRIVER CHEST DISPLACEMENT
Filter: GFC 600
File Name: DChstInMIDsXBC

Maximum: 0.0 mm
Time: 1.1 ms
Minimum: -24.7 mm
Time: 104.5 ms
Value at T0: -0.0 mm

MGA Research Corp
5000 Warren Road,
Burlington, WI 53105
Ph #: 262-763-2705
Fax #: 262-763-0934

Plotted By: S. Agarwai
Test Desc: 40 KMPH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
Test Number: B03062
Test Date: 6/5/2003
ChnName: PASSENGER HEAD X
Filter: CFC 1000
File Name: PHeadInCGAcXTo
Speed: 24.4mph
NHTSA #: C35107

Maximum: 8.0 G's
Time: 137.7 ms

Minimum: -28.5 G's
Time: 84.1 ms

Value at T0: 0.0 Gs

Plotted By: S. Agarwa
Test Desc: 40 KMPH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
TestNumber: B03062
Test Date: 6/5/2003

Channel: PASSENGER CHEST X
Filter: CFC 180
File Name: PChstlnMIacXCo

Speed: 24.4mph
NHTSA #: C35107

Maximum: 2.7 G's
Time: 194.8 ms

Minimum: -30.4 G's
Time: 91.8 ms

Value at T=0: 0.0 Gs

Plotted By: S. Agarwal
Test Desc: 40 KMPH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
Test Number: B03062
Test Date: 6/5/2003

ChnName: PASSENGER RIGHT FEMUR
Filter: CFC 600
File Name: PFemrRiMiFoXBo

Speed: 24.4mph
NHTSA #: C35107

Maximum: 79.4 N
Time: 200.0 ms

Minimum: -5.463.8 N
Time: 105.6 ms

Value at T0: 5.5 N

Plotted By: S. Agarwal
Test Desc: 40 KMPH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
TestNumber: B03062
Test Date: 6/5/2003

ChnName: TOP OF ENGINE X
Filter: CFC 60
File Name: CEngnUpMiAcXDo
Speed: 24.4mph
NHTSA #: C35107

Maximum: 20.0 G's
Time: 66.1 ms

Minimum: -45.0 G's
Time: 22.7 ms

Value at T0: -0.4 G's

Plotted By: S. Agarwal

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5000 Warren Road,
Burlington, WI 53105
Ph #: 262-763-2705
Fax #: 262-763-0934
Test Descriiption: 40 KMPH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
Test Number: B03082
Test Date: 6/5/2003

Channel Name: BOTTOM OF ENGINE X
Filter: CFC 60
File Name: CEngnLoMlAcXDo
Speed: 24.4 mph
NHTSA #: C35107

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Maximum: 66.8 G's
Time: 56.8 ms
Minimum: -56.7 G's
Time: 47.0 ms
Value at T0: 0.5 G's

Plotted By: S. Agarwal