REPORT NUMBER: 208-MGA-2007-020

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

FORD MOTOR COMPANY
2007 FORD MUSTANG PASSENGER CAR
NHTSA NO.: C70207

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

TEST DATE: MARCH 17, 2008
FINAL REPORT DATE: APRIL 23, 2008

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 DTNH22-03-D-11002.

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Prepared by:  Jeff Lewandowski, Project Engineer  Date:  April 23, 2008

Reviewed by:  David Winkelbauer, Facility Director  Date:  April 23, 2008

FINAL REPORT ACCEPTED BY OVSC:

Accepted By:  

Acceptance Date:  April 23, 2008
Final Report of FMVSS 208 Compliance Testing of a 2007 Ford Mustang
NHTSA No.: C70207

Compliance tests were conducted on the subject 2007 Ford Mustang in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP208-13 for the determination of FMVSS 208 compliance. Test failures identified were as follows:

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”
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Purpose of Compliance Test</td>
</tr>
<tr>
<td>2</td>
<td>Test Performed</td>
</tr>
<tr>
<td>3</td>
<td>Injury Result Summary</td>
</tr>
<tr>
<td>4</td>
<td>Discussion of Test (if applicable)</td>
</tr>
<tr>
<td>5</td>
<td>Test Data Sheets</td>
</tr>
</tbody>
</table>

## Data Sheet

<table>
<thead>
<tr>
<th>Data Sheet</th>
<th>Page No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>COTR Vehicle Work Order</td>
</tr>
<tr>
<td>2</td>
<td>Report of Vehicle Condition</td>
</tr>
<tr>
<td>3</td>
<td>Certification Label and Tire Placard Information</td>
</tr>
<tr>
<td>14</td>
<td>Marking of Reference Points for Various Test Positions &amp; Points</td>
</tr>
<tr>
<td>32</td>
<td>Vehicle Weight, Fuel Tank, and Attitude Data</td>
</tr>
<tr>
<td>33</td>
<td>Vehicle Accelerometer Locations and Measurements</td>
</tr>
<tr>
<td>34</td>
<td>Photographic Targets</td>
</tr>
<tr>
<td>35</td>
<td>Camera Locations</td>
</tr>
<tr>
<td>36</td>
<td>Dummy Positioning</td>
</tr>
<tr>
<td>37</td>
<td>Dummy Measurements</td>
</tr>
<tr>
<td>38</td>
<td>Crash Test</td>
</tr>
<tr>
<td>40</td>
<td>Accident Investigation Measurements</td>
</tr>
<tr>
<td>41</td>
<td>Windshield Mounting (FMVSS 212)</td>
</tr>
<tr>
<td>42</td>
<td>Windshield Zone Intrusion (FMVSS 219)</td>
</tr>
<tr>
<td>43</td>
<td>Fuel System Integrity (FMVSS 301)</td>
</tr>
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</table>

## Appendix

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Page No</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>Crash Test Data</td>
</tr>
<tr>
<td>B</td>
<td>Crash Test Photographs</td>
</tr>
<tr>
<td>C</td>
<td>Instrumentation Calibration</td>
</tr>
<tr>
<td>D</td>
<td>Notice of Test Failure (If Applicable)</td>
</tr>
</tbody>
</table>
SECTION 1
PURPOSE OF COMPLIANCE TEST

The tests performed are part of a program conducted for the National Highway Traffic Safety Administration (NHTSA) by MGA Research Corporation (MGA) under Contract No. DTNH22-03-D-11002. The purpose of this test was to determine whether the subject vehicle, a 2007 Ford Mustang, NHTSA No. C70207, 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. TP208-13 dated July 27, 2005.
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 (S4.5.4)
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 R)
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 N)
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 R)
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 N)
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 male 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) (S16.1(a))
   Belted 5th female dummy passenger (0 to 48 kmph) (S16.1(a))
   Belted 50th male dummy driver and passenger (0 to 56 kmph) (S5.1.1.(b)(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))
X Unbelted 5th female dummy driver (32 to 40 kmph) (S16.1(b))
X Unbelted 5th female dummy passenger (32 to 40 kmph) (S16.1(b))
40% Offset 0° Belted 5th female dummy driver and passenger (0 to 40 kmph) (S18.1)

21. Sled Test: unbelted 50th male dummy driver and passenger (S13)
22. FMVSS 204 Indicant Test
X 23. FMVSS 212 Indicant Test
X 24. FMVSS 219 Indicant Test
X 25. FMVSS 301 Frontal Indicant 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 recorded using high-speed film and high-speed digital video.

The vehicle does appear to meet the performance requirements to which it was tested.
SECTION 3
INJURY RESULT SUMMARY FOR FMVSS 208 TEST

Test Vehicle: 2007 Ford Mustang
Test Program: FMVSS 208 Compliance
NHTSA No.: C70207
Test Date: 3/17/08

40 kmph Frontal Crash

Impact Angle: Zero degrees

Belted Dummies: ___Yes   _X No
Speed Range: ___ 0 to 40 kmph  _X 32 to 40 kmph
___ 0 to 48 kmph  ___ 0 to 56 kmph

Test Speed: 39.9 kmph  Test Weight: 1687.4 kg

Driver Dummy: _X 5th female ___ 50th male
Passenger Dummy: _X 5th female ___ 50th male

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

<table>
<thead>
<tr>
<th>Injury Criteria</th>
<th>Max. Allowable Injury Assessment Values</th>
<th>Driver</th>
<th>Passenger</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIC15</td>
<td>700</td>
<td>59</td>
<td>310</td>
</tr>
<tr>
<td>Ne</td>
<td>1.0</td>
<td>0.2</td>
<td>0.8</td>
</tr>
<tr>
<td>Nrf</td>
<td>1.0</td>
<td>0.4</td>
<td>0.2</td>
</tr>
<tr>
<td>Nece</td>
<td>1.0</td>
<td>0.0</td>
<td>0.7</td>
</tr>
<tr>
<td>Ncf</td>
<td>1.0</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Neck Tension</td>
<td>2620 N</td>
<td>947</td>
<td>1404</td>
</tr>
<tr>
<td>Neck Compression</td>
<td>2520 N</td>
<td>92</td>
<td>175</td>
</tr>
<tr>
<td>Chest g</td>
<td>60 g</td>
<td>28</td>
<td>47</td>
</tr>
<tr>
<td>Chest Displacement</td>
<td>52 mm</td>
<td>10</td>
<td>8</td>
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<tr>
<td>Left Femur</td>
<td>6805 N</td>
<td>3659</td>
<td>3222</td>
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<tr>
<td>Right Femur</td>
<td>6805 N</td>
<td>3541</td>
<td>3943</td>
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</table>
This test was performed after the remedy for Ford recall no. 08C02 (NHTSA recall no. 08V082) was completed at a Ford dealer. The remedy increased the delay time for firing of the second stage of the inflator from 10 ms to 100 ms for unbelted occupants.
<table>
<thead>
<tr>
<th>Test Vehicle</th>
<th>2007 Ford Mustang</th>
<th>NHTSA No.:</th>
<th>C70207</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Program</td>
<td>FMVSS 208 Compliance</td>
<td>Test Dates:</td>
<td>3/17/08</td>
</tr>
</tbody>
</table>
# DATA SHEET 1
## COTR VEHICLE WORK ORDER

Test Vehicle: **2007 Ford Mustang**  
NHTSA No.: **C70207**  
Test Program: **FMVSS 208 Compliance**  
Test Dates: **3/17/08**  
COTR Signature: **Charles R. Case**

Test to be performed for this vehicle are checked below:

<table>
<thead>
<tr>
<th>Test</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>Rear Outboard Seating Position Seat Belts (S4.1.2(b)) &amp; (S4.2.4)</td>
</tr>
<tr>
<td>2.</td>
<td>Air Bag Labels (S4.5.1)</td>
</tr>
<tr>
<td>3.</td>
<td>Readiness Indicator (S4.5.2)</td>
</tr>
<tr>
<td>4.</td>
<td>Passenger Air Bag Manual Cut-off Device (S4.5.4)</td>
</tr>
<tr>
<td>5.</td>
<td>Lap Belt Lockability (S7.1.1.5)</td>
</tr>
<tr>
<td>6.</td>
<td>Seat Belt Warning System (S7.3)</td>
</tr>
<tr>
<td>7.</td>
<td>Seat Belt Contact Force (S7.4.4)</td>
</tr>
<tr>
<td>8.</td>
<td>Seat Belt Latch Plate Access (S7.4.4)</td>
</tr>
<tr>
<td>9.</td>
<td>Seat Belt Retraction (S7.4.5)</td>
</tr>
<tr>
<td>10.</td>
<td>Seat Belt Guides and Hardware (S7.4.6)</td>
</tr>
<tr>
<td>11.</td>
<td>Suppression tests with 12-month-old CRABI dummy (Part 572, Subpart R) using the following indicated child restraints.</td>
</tr>
<tr>
<td>12.</td>
<td>Suppression tests with newborn infant (Part 572, Subpart K) using the following indicated child restraints.</td>
</tr>
<tr>
<td>13.</td>
<td>Suppression tests with 3-year-old dummy (Part 572, Subpart P) using the following indicated child restraints where a child restraint is required.</td>
</tr>
</tbody>
</table>

### Section B

<table>
<thead>
<tr>
<th>Child Restraint</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Britax Handle with Care 191</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Century Assura 4553</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Century Avanta SE 41530</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Century Smart Fit 4543</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Cosco Arriva 02727</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Cosco Opus 35 02603</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Evenflo Discovery Adjust Right 212</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Evenflo First Choice 204</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Evenflo On My Way Position Right V 282</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Graco Infant 8457</td>
<td>Full Rearward</td>
</tr>
</tbody>
</table>

### Section C

<table>
<thead>
<tr>
<th>Child Restraint</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Britax Roundabout 161</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Century Encore 4612</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Century STE 1000 4416</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Cosco Olympian 02803</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Cosco Touriva 02519</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Evenflo Horizon V 425</td>
<td>Full Rearward</td>
</tr>
<tr>
<td>Evenflo Medallion 254</td>
<td>Full Rearward</td>
</tr>
</tbody>
</table>

### Section A

<table>
<thead>
<tr>
<th>Child Restraint</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Cosco Dream Ride 02-719</td>
<td>Full Rearward</td>
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### Section C

<table>
<thead>
<tr>
<th>Child Restraint</th>
<th>Position</th>
<th>Position</th>
<th>Position</th>
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</thead>
<tbody>
<tr>
<td>Britax Roundabout 161</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</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 02803</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Cosco Touriva 02519</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Evenflo Horizon V 425</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Evenflo Medallion 254</td>
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### Section D

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<th>Child Restraint</th>
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<th>Position</th>
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<tr>
<td>Britax Roadster 9004</td>
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</tr>
<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>
</tr>
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</table>

### 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)

### Section C

<table>
<thead>
<tr>
<th>Child Restraint</th>
<th>Position</th>
<th>Position</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Britax Roundabout 161</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</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 02803</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Cosco Touriva 02519</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Evenflo Horizon V 425</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<tr>
<td>Evenflo Medallion 254</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
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### Section D

<table>
<thead>
<tr>
<th>Child Restraint</th>
<th>Position</th>
<th>Position</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Britax Roadster 9004</td>
<td>Full Rearward</td>
<td>Mid Position</td>
<td>Full Forward</td>
</tr>
<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>
</tr>
</tbody>
</table>

### 15. Suppression tests with 3-year-old dummy (Part 572, Subpart P) in the following Forward, Middle, and Rearward seat track 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, spine vertical, hands by the child's side (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 representative 3-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 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.
18. Suppression tests with representative 6-year-old child using the following indicated child restraints where a child restraint is required.

<table>
<thead>
<tr>
<th>Section D</th>
<th>Full Rearward</th>
<th>Mid Position</th>
<th>Full Forward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Britax Roadster 9004</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Century Next Step 4920</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cosco High Back Booster 02-442</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evenflo Right Fit 245</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

19. Suppression tests with 6-year-old dummy (Part 572, Subpart N) in the following Forward, Middle, and Rearward seat track 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 back in the seat and leaning on the right front passenger door (S24.2.3)

20. Suppression tests with 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 back 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: After each restraint.

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 12-month-old dummy (Part 572, Subpart R) using the following indicated child restraints.

<table>
<thead>
<tr>
<th>Section B</th>
<th>Full Rearward</th>
<th>Mid Position</th>
<th>Full Forward</th>
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<tbody>
<tr>
<td>Britax Handle with Care 191</td>
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<td>Century Assura 4553</td>
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<td>Century Avanta SE 41530</td>
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<td>Century Smart Fit 4543</td>
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<td>Cosco Arriva 02727</td>
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<td>Cosco Opus 35 02603</td>
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<td>Evenflo Discovery Adjust Right 212</td>
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<td>Evenflo First Choice 204</td>
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<td>Evenflo On My Way Position Right V 282</td>
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<td>Graco Infant 8457</td>
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<table>
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<tr>
<th>Section C</th>
<th>Full Rearward</th>
<th>Mid Position</th>
<th>Full Forward</th>
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<tbody>
<tr>
<td>Britax Roundabout 161</td>
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<td>Century Encore 4612</td>
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<td>Century STE 1000 4416</td>
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<td>Cosco Olympian 02803</td>
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<td>Cosco Touriva 02519</td>
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<td>Evenflo Horizon V 425</td>
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</tr>
<tr>
<td>Evenflo Medallion 254</td>
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</tr>
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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 6-year-old dummy (Part 572, Subpart N) in the following positions
   Position 1
   Position 2

26. Low risk deployment test with 5th percentile female dummy (Part 572, Subpart O) 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(a))
   Unbelted 50th male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a)(1))
   Unbelted 50th male dummy driver and passenger (32 to 40 kmph) (S5.1.2(a) (1) or S5.1.2(b))
   Frontal 0° - Test Speed: 39.9 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 50th male dummy driver and passenger (0 to 56 kmph) (S5.1.2(a) (1))
   Unbelted 50th male dummy driver (0 to 48 kmph) (S5.1.2.(a)(2) or S5.1.2(b))
   Unbelted 50th male dummy passenger (0 to 48 kmph) (S5.1.2.(a)(2) or S5.1.2(b))
   Unbelted 5th female dummy driver (0 to 48 kmph) (S5.1.2.(a)(2) or S5.1.2(b))
   Unbelted 5th female dummy passenger (32 to 40 kmph) (S16.1(b))
   40% Offset 0° Belted 5th female dummy driver and passenger (0 to 40 kmph) (S18.1) - Test Speed:
   Belted 50th male dummy driver and passenger (0 to 40 kmph) (S13)
   FMVSS 204 Indicant Test
   FMVSS 212 Indicant Test
   FMVSS 219 Indicant Test
   FMVSS 301 Frontal Indicant Test
DATA SHEET 2
REPORT OF VEHICLE CONDITION

Test Vehicle: 2007 Ford Mustang  
Test Program: FMVSS 208 Compliance  
NHTSA No.: C70207  
Test Date: 3/17/08

CONTRACT NO.: DTNH22-03-D-11002  
Date: 3/24/08

FROM (Lab and rep name): MGA Research Corporation  
TO: NHTSA, OVSC (NVS-220)

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

MODEL YEAR/MAKE/MODEL/BODY STYLE: 2007 Ford Mustang 2 Door

MANUFACTURE DATE: 03/07

NHTSA NO. C70207  
GVWR: 1969 kg (4340 lbs)

BODY COLOR: Blue  
GAWR (Fr): 955 kg (2105 lbs)

VIN: 1ZVFT80N475325885  
GAWR (Rr): 1032 kg (2275 lbs)

ODOMETER READINGS: ARRIVAL (miles): 106  
DATE: 9/7/07  
COMPLETION (miles): 146  
DATE: 3/17/08

PURCHASE PRICE: ($) 19,400

DEALER’S NAME: Boucher Fleet Group, 1421 E. Moreland Blvd, Waukesha, WI  53186

A. All options listed on window sticker are present on the test vehicle:  
   _X_ Yes  ___No

B. Tires and wheel rims are new and the same as listed:  
   _X_ Yes  ___No

C. There are no dents or other interior or exterior flaws:  
   _X_ Yes  ___No

D. The vehicle has been properly prepared and is in running condition:  
   _X_ Yes  ___No

E. Keyless remote is available and working:  
   _X_ Yes  ___No

F. The glove box contains an owner’s manual, warranty document, consumer information, 
   and extra set of keys:  
   _X_ Yes  ___No

G. Proper fuel filler cap is supplied on the test vehicle:  
   _X_ Yes  ___No

H. Using permanent marker, identify vehicle with NHTSA number and FMVSS test type(s) 
   on roof line above driver door or for school buses, place a placard with NHTSA number 
   inside the windshield and to the exterior front and rear side of bus:  
   _X_ Yes  ___No

I. Place vehicle in storage area:  
   _X_ Yes  ___No

J. Inspect the vehicle’s interior and exterior, including all windows, seats, doors, etc. to 
   confirm that each system is complete and functional per the manufacturer’s 
   specifications. Any damage, misadjustment, or other unusual condition that could 
   influence the test program or test results shall be recorded. Report any abnormal 
   condition to the NHTSA COTR before beginning any test:  
   _X_ Vehicle OK  ___Conditions reported below

Test Vehicle: 2007 Ford Mustang  
Test Program: FMVSS 208 Compliance  
NHTSA No. C70207  
Test Date: 3/17/08

Test Date: 3/17/08
REPORT OF VEHICLE CONDITION AT THE COMPLETION OF TESTING

LIST OF FMVSS TESTS PERFORMED BY THIS LAB: FMVSS 208, 212, 219, 301
VEHICLE: 2007 Ford Mustang NHTSA NO. C70207

REMARKS:

Equipment that is no longer on the test vehicle as noted on previous page:
Spare tire, jack and tools, rear seat bottom, and trunk interior

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

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

RECORDED BY: Jeff Lewandowski DATE: 3/24/2008
APPROVED BY: David Winkelbauer DATE: 3/24/2008

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>2007 Ford Mustang</th>
<th>NHTSA No.:</th>
<th>C70207</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Program:</td>
<td>FMVSS 208 Compliance</td>
<td>Test Date:</td>
<td>3/17/08</td>
</tr>
<tr>
<td>Test Technician:</td>
<td>Jamie Aide</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Certification Label

<table>
<thead>
<tr>
<th>Manufacturer:</th>
<th>Ford Motor Co.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Manufacture:</td>
<td>03/07</td>
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<tr>
<td>VIN:</td>
<td>1ZVFT80N475325885</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>955 kg (2105 lbs)</td>
</tr>
<tr>
<td>Rear Axle GVWR:</td>
<td>1032 kg (2275 lbs)</td>
</tr>
<tr>
<td>Total GVWR:</td>
<td>1969 kg (4340 lbs)</td>
</tr>
</tbody>
</table>

### Tire Placard

| Not applicable, vehicle is not a passenger car and does not have a tire placard. | Passenger Car |
| This is not a passenger car, but all or part of this information is still contained on a vehicle label and is reported here. | Passenger Car |
| Vehicle Capacity Weight: | 326 kg (720 lbs) |
| Designated Seating Capacity Front: | 2 |
| Designated Seating Capacity Rear: | 2 |
| Total Designated Seating Capacity: | 4 |
| Recommended Cold Tire Inflation Pressure Front: | 240 kpa (35 psi) |
| Recommended Cold Tire Inflation Pressure Rear: | 240 kpa (35 psi) |
| Recommended Tire Size: | P215/65R16 |

Signature: ___________________ Date: 3/17/08
DATA SHEET 14
MARKING OF REFERENCE POINTS FOR VARIOUS TEST POSITIONS AND POINTS

Test Vehicle: 2007 Ford Mustang  
NHTSA No.: C70207  
Test Program: FMVSS 208 Compliance  
Test Date: 3/17/08

Test Technician: Joe Fleck

DATA SHEET 14.1
MARKING OF REFERENCE POINTS FOR 5th FEMALE

X Driver Seat __ Passenger Seat

1. Seat Position

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

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

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

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

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

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

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

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

- Maximum angle **Zero**
- Minimum angle **Zero**
- Mid-angle **Zero**

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

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

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

1.13 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually **mark** 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 1.8. (S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S22.4.3.1, S24.1.2, S24.3.1, S24.4.3.1, S26.2.3, S26.3.1)

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

1.15 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually **mark** 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 1.8. (S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S24.1.2, S24.3.1)

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

1.17 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually **mark** 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 1.8. (S16.2.10.3.3, S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S24.1.2, S24.3.1)

1.18 Visually **mark** for future reference the seat back angle at the manufacturer’s nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer for the rearmost, mid, and foremost seat positions. (S20.1.9.5, S22.1.7.5, S22.4.2.1, S22.4.3.1, S24.1.2, S24.4.2.1, S26.2.3, S26.3.1)

1.19 Is the seat a bucket seat?

- X Yes, go to 1.20 and skip 1.21
- __ No, go to 1.21 and skip 1.20

1.20 Bucket seats:

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

1.21 Bench seats (complete ONLY the one that is applicable to the seat being marked):

1.21.1 Driver Seat

- Locate and **mark** for future reference the longitudinal line on the seat cushion that marks the intersection of the vertical longitudinal plane through the centerline of the steering wheel and the seat cushion upper surface.
1.21.2 Passenger Seat
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, S24.2.3, S20.4.4, S22.2.2.1(b), S22.2.2.3(b), S22.2.2.4(a), S22.2.2.5(a), S22.2.2.6(a), S22.2.2.7(a), S24.2.3(a))
Record the distance from the longitudinal centerline of the vehicle to the center of the steering wheel. 
Record the distance from the longitudinal centerline of the vehicle to the longitudinal centerline of the seat cushion. (The vertical plane through this longitudinal centerline is Plane B for suppression.) 

2. Head Restraint Position
N/A Vehicle contains automatic head restraints.
N/A, there is no head restraint adjustment

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

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

X 2.3 Measure the vertical distance from the top most point of the head restraint to the bottom most point. Locate and mark a horizontal plane through the midpoint of this distance. (S16.3.4.3)
Vertical height of head restraint 210 mm
Mid-point height 105 mm

I certify that I have read and performed each instruction.

Signature: ______________________ Date: 3/17/08
DATA SHEET 14.1
MARKING OF REFERENCE POINTS FOR 5th FEMALE

__Driver Seat  X Passenger Seat

1. Seat Position
   X 1.1 Position the seat’s adjustable lumbar supports so that the lumbar supports are in the lowest, retracted or deflated adjustment positions. (S16.2.10.1, S20.1.9.1, S20.4.1, S22.1.7.1)
   _X_ N/A - No lumbar adjustment
   X 1.2 Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2, S20.1.9.2, S20.4.1, S22.1.7.1, S22.4.2.1, S22.4.3.1, S24.4.2.1, S26.2.3, S26.3.1)
   X N/A - No additional support adjustment
   X 1.3 Position an adjustable leg support system in its rearmost position. (8/27/04 interpretation to Toyota)
   X N/A - No adjustable leg support system
   X 1.4 Mark a point (seat cushion reference point) on the side of the seat cushion that is between 150 mm and 250 mm from the front edge of the seat cushion. (S16.3.1.12)
   X 1.5 Draw a line (seat cushion reference line) through the seat cushion reference point. (S16.3.1.13)
   X 1.6 Use only the controls that primarily move the seat in the fore-aft direction to move the seat cushion reference point to the rearmost position. (S16.2.10.3.1, S22.1.7.3)
   X 1.7 If the seat cushion adjusts fore-aft, independent of the seat back, use only the controls that primarily move the seat cushion in the fore-aft direction to move the seat cushion reference point to the rearmost position. (S16.2.10.3.1, S20.1.9.3)
   X N/A - No independent fore-aft seat cushion adjustment
   X 1.8 Use any part of any control, other than the parts just used for fore-aft positioning, to determine the range of angles of the seat cushion reference line and to set the seat cushion reference line at the mid-angle. (S16.2.10.3.1) NO ADJUSTMENT
      Maximum angle Zero
      Minimum angle Zero
      Mid-angle Zero
   X 1.9 If the seat and/or seat cushion height is adjustable, use any part of any control other than the parts which primarily move the seat or seat cushion fore-aft, to put the seat cushion reference point in its lowest position with the seat cushion reference line angle at the mid-angle found in 1.8. (S16.2.10.3.1)
   X N/A - No seat height adjustment
   X 1.10 Use only the controls that primarily move the seat in the fore-aft direction to verify the seat is in the rearmost position.
   X 1.11 Use only the controls that primarily move the seat in the fore-aft direction to mark 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.
   X 1.12 Use only the controls that primarily move the seat in the fore-aft direction to place the seat in the rearmost position.
1.13 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually mark 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 1.8. (S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S22.4.3.1, S24.1.2, S24.3.1, S24.4.3.1, S26.2.3, S26.3.1)

X N/A - No seat height adjustment. Go to 1.18

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

1.15 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually mark 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 1.8. (S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S24.1.2, S24.3.1)

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

1.17 Use any part of any control, other than the parts which primarily move the seat or seat cushion fore-aft, to find and visually mark 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 1.8. (S16.2.10.3.3, S20.1.9.4, S22.1.2, S22.1.7.4, S22.3.1, S24.1.2, S24.3.1)

X 1.18. Visually mark for future reference the seat back angle at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer for the rearmost, mid, and foremost seat positions. (S20.1.9.5, S22.1.7.5, S22.4.2.1, S22.4.3.1, S24.1.2, S24.4.2.1, S26.2.3, S26.3.1)

N/A - No seat back angle adjustment

Manufacturer's design seat back angle 25.9° On Seat Back

X 1.19. Is the seat a bucket seat?

X Yes, go to 1.20 and skip 1.21

__ No, go to 1.21 and skip 1.20

X 1.20 Bucket seats:

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

1.21 Bench seats (complete ONLY the one that is applicable to the seat being marked):

1.21.1 Driver Seat

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

1.21.2 Passenger Seat

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, S24.2.3, S20.4.4, S22.2.2.1(b), S22.2.2.3(b), S22.2.2.4(a), S22.2.2.5(a), S22.2.2.6(a), S22.2.2.7(a), S24.2.3(a))

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

Record the distance from the longitudinal centerline of the vehicle to the longitudinal centerline of the seat cushion. (The vertical plane through this longitudinal centerline is Plane B for suppression.)
2. Head Restraint Position
   ___N/A Vehicle contains automatic head restraints.
   ___N/A, there is no head restraint adjustment

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

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

2.3 Measure the vertical distance from the top most point of the head restraint to the bottom
    most point. Locate and **mark** a horizontal plane through the midpoint of this distance.
    (S16.3.4.3)
    Vertical height of head restraint **210** mm
    Mid-point height **105** mm

I certify that I have read and performed each instruction.

Signature: ______________________ Date: _____ 3/17/08_____
X 1.  Is the steering wheel adjustable up and down and/or in and out?
   X Yes - go to 2
   ___No - this form is complete

X 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

X 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.
   X N/A - steering wheel is not adjustable in and out.

I certify that I have read and performed each instruction.

Signature: ___________________________  Date: ______ 3/17/08
DATA SHEET 32

VEHICLE WEIGHT, FUEL TANK, AND ATTITUDE DATA

Test Vehicle: 2007 Ford Mustang
Test Program: FMVSS 208 Compliance
Test Technician: Jamie Aide
NHTSA No.: C70207
Test Date: 3/17/08

TRADEMARK STATUS

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: X 5th female  50th male
PASSENGER DUMMY: X 5th female  50th male

1. Fill the transmission with transmission fluid to the satisfactory range.
2. Drain fuel from vehicle
3. Run the engine until fuel remaining in the fuel delivery system is used and the engine stops.
4. Record the useable fuel tank capacity supplied by the COTR
   Useable Fuel Tank Capacity supplied by COTR: 60.6 liters (16.0 gallons)
5. Record the fuel tank capacity supplied in the owner's manual.
   Useable Fuel Tank Capacity in owner's manual: 60.6 liters (16.0 gallons)
6. Using purple dyed Stoddard solvent having the physical and chemical properties of Type 1 solvent or cleaning fluid, Table 1, ASTM Standard D484-71, “Standard Specifications for Hydrocarbon Dry-cleaning Solvents,” or gasoline, fill the fuel tank.
   Amount Added: 60.6 liters (16.0 gallons)
7. Fill the coolant system to capacity.
8. Fill the engine with motor oil to the Max. mark on the dip stick.
9. Fill the brake reservoir with brake fluid to its normal level.
10. Fill the windshield washer reservoir to capacity.
11. Inflate the tires to the tire pressure on the tire placard. If no tire placard is available, inflate the tires to the recommended pressure in the owner’s manual.

<table>
<thead>
<tr>
<th>Tire placard pressure:</th>
<th>RF: 35 psi</th>
<th>LF: 35 psi</th>
<th>RR: 35 psi</th>
<th>LR: 35 psi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner’s manual pressure:</td>
<td>RF: 35 psi</td>
<td>LF: 35 psi</td>
<td>RR: 35 psi</td>
<td>LR: 35 psi</td>
</tr>
<tr>
<td>Actual inflated pressure:</td>
<td>RF: 35 psi</td>
<td>LF: 35 psi</td>
<td>RR: 35 psi</td>
<td>LR: 35 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).

| Right Front (kg): | 350.2 | Right Rear (kg): | 425.5 |
| Left Front (kg):  | 419.6 | Left Rear (kg):  | 347.9 |
| Total Front (kg): | 769.8 | Total Rear (kg): | 773.4 |
| % Total Weight:   | 49.9  | % Total Weight:  | 50.1  |
| UVW = TOTAL FRONT PLUS TOTAL REAR (KG): | 1543.2 |

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>729</th>
<th></th>
<th>730</th>
<th></th>
<th>736</th>
<th></th>
<th>742</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF</td>
<td></td>
<td></td>
<td>LF</td>
<td></td>
<td></td>
<td></td>
<td>RR</td>
<td></td>
</tr>
</tbody>
</table>

14. Calculate the Rated Cargo and Luggage Weight (RCLW): 54 kg

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

- Yes, go to 14.3
- No, go to 14.2

14.2 VCW = Gross Vehicle Weight - UVW

\[
\text{VCW} = \underline{\text{__________}} - \underline{\text{__________}} = \underline{\text{__________}}
\]

14.3 VCW = 326 kg (720 lbs)

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

- Yes, go to 14.6
- No, go to 14.5 and skip 14.6

14.5 DSC = Total number of seat belt assemblies = ________

14.6 DSC = ______

14.7 RCLW = VCW - (68 kg x DSC) = 326 kg - (68 kg x 4) = 54 kg

14.8 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

15. Fully Loaded Weight (100% fuel fill): 1696.5 kg

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

Driver:  X 5\textsuperscript{th} female   ___ 50\textsuperscript{th} male
Passenger: X 5\textsuperscript{th} female   ___ 50\textsuperscript{th} male

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

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

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

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Right Front (kg):</td>
<td>411.4</td>
<td>Right Rear (kg):</td>
</tr>
<tr>
<td>Left Front (kg):</td>
<td>437.3</td>
<td>Left Rear (kg):</td>
</tr>
<tr>
<td>Total Front (kg):</td>
<td>848.7</td>
<td>Total Rear (kg):</td>
</tr>
<tr>
<td>% Total Weight:</td>
<td>50.9</td>
<td>% Total Weight:</td>
</tr>
<tr>
<td>% GVW</td>
<td>48.5</td>
<td>% GVW</td>
</tr>
<tr>
<td>(% GVW = Axle GVW divided by Vehicle GVW)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[
\text{Fully Loaded Weight} = \text{Total Front Plus Total Rear (kg)} = \underline{1696.5}
\]

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

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

| RF: 723 | LF: 724 | RR: 713 | LR: 718 |

17. Drain the fuel system

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

Fuel tank capacity x .94 = 60.6 liters (16.0 gallons) x .94 = 56.9 liters (15.0 gallons)

Amount added 56.2 liters (14.9 gallons) 92.8%

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) + 2x(dummy weight)

\[1695.2 \text{ kg} = 1543.2 \text{ kg} + 54.0 \text{ kg} + 98.0 \text{ kg}\]

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

Max. Test Weight = Calculated Test Weight - 4.5 kg = 1690.7 kg

Min. Test Weight = Calculated Test Weight - 9 kg = 1686.2 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 and tools, rear seat bottom, and trunk interior

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. 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>Weight (kg)</th>
<th>Right Front</th>
<th>Right Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Front</td>
<td>875.5</td>
<td>408.6</td>
</tr>
<tr>
<td>% Total Weight</td>
<td>51.9</td>
<td>48.1</td>
</tr>
<tr>
<td>Total Rear</td>
<td>811.9</td>
<td>403.3</td>
</tr>
<tr>
<td>% Total Weight</td>
<td>52.4</td>
<td>51.9</td>
</tr>
</tbody>
</table>

\(\% \text{ GVW} = \text{Axle GVW divided by Vehicle GVW}\)

TOTAL FRONT PLUS TOTAL REAR (kg): 1687.4
28. Is the test weight between the Max. Weight and the Min. Weight (See 20.2)?
   [X] Yes
   [ ] No, explain why not.

29. Test Weight Vehicle Attitude: (all dimensions in millimeters)
   29.1 Place the vehicle on a level surface
   29.2 Measure perpendicular to the level surface to the 4 points marked on the body (see 13 above) and record the measurements
   RF: 724   LF: 724   RR: 718   LR: 719

30. Summary of test attitude
   30.1 AS DELIVERED:
   RF: 729   LF: 730   RR: 743   LR: 742
   AS TESTED:
   RF: 724   LF: 724   RR: 718   LR: 719
   FULLY LOADED:
   RF: 723   LF: 724   RR: 713   LR: 718

30.2 Is the “as tested” test attitude equal to or between the “fully loaded” and “as delivered” attitude?
   [X] Yes
   [ ] No, explain why not.

REMARKS:
I certify that I have read and performed each instruction.

Signature: [Signature] Date: 3/17/08
DATA SHEET 33

VEHICLE ACCELEROMETER LOCATION AND MEASUREMENT

Test Vehicle: 2007 Ford Mustang                NHTSA No.: C70207
Test Program: FMVSS 208 Compliance           Test Date: 3/17/08
Test Technician: Jamie Aide

<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>X 5th female</td>
</tr>
<tr>
<td>PASSENGER DUMMY:</td>
<td>X 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:

I certify that I have read and performed each instruction.

Signature: __________________ Date: __3/17/08______

Test Vehicle: 2007 Ford Mustang
Test Program: FMVSS 208 Compliance
Test Technician: Jamie Aide

NHTSA No.: C70207
Test Date: 3/17/08
VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

Dimensions Corresponding To The Letters “A” Through “K” (Excluding “I”) Are Recorded In The Table On The Following Page. Accelerometers Corresponding To The Numbers 1 Through 8 Are Specified On The Preceding Page.
<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>LENGTH (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRETEST VALUES</strong></td>
<td></td>
</tr>
<tr>
<td>A (LH Rear Seat Xmbr)</td>
<td>341</td>
</tr>
<tr>
<td>B (RH Rear Seat Xmbr)</td>
<td>355</td>
</tr>
<tr>
<td>C (Engine Top)</td>
<td>3770</td>
</tr>
<tr>
<td>D (Engine Bottom)</td>
<td>3580</td>
</tr>
<tr>
<td>E (Caliper)</td>
<td>Right Side: 3673, Left Side: 3673</td>
</tr>
<tr>
<td>F (Left Caliper)</td>
<td>690</td>
</tr>
<tr>
<td>G (IP)</td>
<td>2875</td>
</tr>
<tr>
<td>H (Seat)</td>
<td>1780</td>
</tr>
<tr>
<td>J (Right Caliper)</td>
<td>690</td>
</tr>
<tr>
<td>K (Trunk)</td>
<td>916</td>
</tr>
<tr>
<td><strong>POST TEST VALUES</strong></td>
<td></td>
</tr>
<tr>
<td>A (LH Rear Seat Xmbr)</td>
<td>341</td>
</tr>
<tr>
<td>B (RH Rear Seat Xmbr)</td>
<td>355</td>
</tr>
<tr>
<td>C (Engine Top)</td>
<td>3772</td>
</tr>
<tr>
<td>D (Engine Bottom)</td>
<td>3631</td>
</tr>
<tr>
<td>E (Caliper)</td>
<td>Right Side: 3633, Left Side: 3628</td>
</tr>
<tr>
<td>F (Left Caliper)</td>
<td>722</td>
</tr>
<tr>
<td>G (IP)</td>
<td>2872</td>
</tr>
<tr>
<td>H (Seat)</td>
<td>1780</td>
</tr>
<tr>
<td>J (Right Caliper)</td>
<td>720</td>
</tr>
<tr>
<td>K (Trunk)</td>
<td>916</td>
</tr>
</tbody>
</table>
DATA SHEET 34
PHOTOGRAPHIC TARGETS

Test Vehicle: 2007 Ford Mustang  
Test Program: FMVSS 208 Compliance
Test Technician: Jamie Aide
NHTSA No.: C70207
Test Date: 3/17/08

**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:**
- X 5th female
- _ 50th male

**PASSENGER DUMMY:**
- X 5th female
- _ 50th male

---

X 1. FMVSS 208 vehicle targeting requirements (See Figures 28A and 28B)

X 1.1 Targets A1 and A2 are on flat rectangular panels.

X 1.2 Three circular targets at least 90 mm in diameter and with black and yellow quadrants are mounted at the front on the outboard sides of A1 and A2. The center of each circular target is 100 mm from the one next to it.

Distance between targets (mm): 100 mm

X 1.3 Three circular targets at least 90 mm in diameter and with black and yellow quadrants are mounted at the back on the outboard sides of on A1 and A2. The center of each circular target is 100 mm from the one next to it.

Distance between targets (mm): 100 mm

X 1.4 The distance between the first circular target at the front of A1 and A2 and the last circular target at the back of A1 and A2 is at least 915 mm.

Distance between the first and last circular targets (mm): 815 mm (Roof will not accommodate 915 mm distance.

X 1.5 Firmly fix target A1 on the vehicle roof in the vertical longitudinal plane that is coincident with the midsagittal plane of the driver dummy.

X 1.6 Firmly fix target A2 on the vehicle roof in the vertical longitudinal plane that is coincident with the midsagittal plane of the passenger dummy.

X 1.7 Two circular targets (C1 and C2) at least 90 mm in diameter and with black and yellow quadrants are mounted on the outside of the driver door. The centers of each circular target are at least 610 mm apart.

Distance between targets (mm): 610 mm

X 1.8 Two circular targets (C1 and C2) at least 90 mm in diameter and with black and yellow quadrants are mounted on the outside of the passenger door. The centers of each circular target are at least 610 mm apart.

Distance between targets (mm): 610 mm

X 1.9 Place tape with squares having alternating colors on the top portion of the steering wheel.

X 1.10 Chalk the bottom portion of the steering wheel

X 1.11 Is this an offset test?

- Yes, continue with this section
- X No, go to 2.
1.12 Measure the width of the vehicle.
   Vehicle width (mm):

1.13 Find the centerline of the vehicle. (½ of the vehicle width)

1.14 Find the line parallel to the centerline of the vehicle and 0.1 x vehicle width from the centerline of the vehicle.

1.15 Apply 25 mm wide tape with alternating black and yellow squares parallel to and on each side of the line found in 1.14. The edge of each tape shall be 50 mm from the line found in 1.14. The tape shall extend from the bottom of the bumper to the front edge of the windshield. (Figure 28D)

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 90 mm in diameter and with black and yellow quadrants are mounted on the sides of the rectangular panel away from the longitudinal centerline of the vehicle. The center of each circular target is 100 mm from the one next to it.

   Distance between circular targets on D1 (mm): 100 mm
   Distance between circular targets on D2 (mm): 100 mm

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.

   X No, this form is complete.

4.2 Resection panel (Figure 28C)

4.2.1 The panel deviates no more than 6 mm from perfect flatness when suspended vertically

4.2.2 The 8 targets on the panel are circular targets at least 90 mm in diameter and with black and yellow quadrants.

4.2.3 The center of each of the 4 outer targets are placed within 1 mm of the corners of a square measuring 914 mm on each side.
4.2.4 Locate another square with 228 mm sides and with the center of this square coincident with the center of the 914 mm square.

4.2.5 The center of the 4 inner targets are placed at the midpoints of each of the 228 mm sides.

4.3 Place a circular target at least 90 mm in diameter and with black and yellow quadrants on a material (cardboard, metal, etc.) that can be taped to the top of the steering column.

4.4 Tape the target from 4.3 to the top of the steering column in a manner that does not interfere with the movement of the steering column in a crash.

I certify that I have read and performed each instruction.

Signature: ________________ Date: 3/17/08
REFERENCE PHOTO TARGETS

CONCRETE BARRIER

915 mm

A1
B
C1
C2

100 mm
100 mm

610 mm

MONORAIL

COVERED PHOTO PIT

LEFT SIDE VIEW
RESECTION PANEL TARGETING ALIGNMENT

C1 C2

B

A1 A2

CAR TOP TARGETS A1 & A2

RESECTION CONTROL POINTS PANEL

STEERING WHEEL

REAR VIEW

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

A1

RESECTION CONTROL POINTS PANEL

STEERING COLUMN TARGET B

LEFT SIDE VIEW

B

C1 C2

A1
PRE-RUN STEERING COLUMN HIGH SPEED CAMERA VIEW

LEFT SIDE VIEW

914 mm
## DATA SHEET 35
### CAMERA LOCATIONS

Test Vehicle: 2007 Ford Mustang  
Test Program: FMVSS 208 Compliance  
NHTSA No.: C70207  
Test Date: 3/17/08  
Time: 10:34 am

<table>
<thead>
<tr>
<th>CAMERA NO.</th>
<th>VIEW</th>
<th>CAMERA POSITIONS (mm) *</th>
<th>LENS (mm)</th>
<th>SPEED (fps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Real Time Left Side View</td>
<td>X</td>
<td>Y</td>
<td>Z</td>
</tr>
<tr>
<td>2</td>
<td>Left Side View (Barrier face to front seat backs)</td>
<td>990</td>
<td>-4810</td>
<td>1120</td>
</tr>
<tr>
<td>3</td>
<td>Left Side View (Driver)</td>
<td>1610</td>
<td>-5985</td>
<td>1250</td>
</tr>
<tr>
<td>4</td>
<td>Left Side View (B-post aimed toward center of steering wheel)</td>
<td>7500</td>
<td>-5730</td>
<td>2000</td>
</tr>
<tr>
<td>5</td>
<td>Left Side View (Steering Column)</td>
<td>1315</td>
<td>-5310</td>
<td>1290</td>
</tr>
<tr>
<td>6</td>
<td>Left Side View (Steering Column)</td>
<td>1300</td>
<td>-5310</td>
<td>900</td>
</tr>
<tr>
<td>7</td>
<td>Right Side View (Overall)</td>
<td>2280</td>
<td>6140</td>
<td>1230</td>
</tr>
<tr>
<td>8</td>
<td>Right Side View (Passenger)</td>
<td>1600</td>
<td>6135</td>
<td>1320</td>
</tr>
<tr>
<td>9</td>
<td>Right Side View (Angle)</td>
<td>7160</td>
<td>5110</td>
<td>2050</td>
</tr>
<tr>
<td>10</td>
<td>Right Side View (Front door)</td>
<td>1045</td>
<td>5290</td>
<td>1080</td>
</tr>
<tr>
<td>11</td>
<td>Front View Windshield</td>
<td>-285</td>
<td>0</td>
<td>2830</td>
</tr>
<tr>
<td>12</td>
<td>Front View Driver</td>
<td>-135</td>
<td>-395</td>
<td>2240</td>
</tr>
<tr>
<td>13</td>
<td>Front View Passenger</td>
<td>-110</td>
<td>505</td>
<td>2240</td>
</tr>
<tr>
<td>14</td>
<td>Overhead Barrier Impact View</td>
<td>-1200</td>
<td>0</td>
<td>5050</td>
</tr>
<tr>
<td>15</td>
<td>Pit Camera Engine View</td>
<td>-1030</td>
<td>0</td>
<td>-3150</td>
</tr>
<tr>
<td>16</td>
<td>Pit Camera Fuel Tank View</td>
<td>2830</td>
<td>0</td>
<td>-3150</td>
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</tbody>
</table>

*COORDINATES:
- +X - forward of impact plane
- +Y - right of monorail centerline
- +Z - above ground level
DATA SHEET 36

APPENDIX G

DUMMY POSITIONING PROCEDURES

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

Test Vehicle: 2007 Ford Mustang
Test Program: FMVSS 208 Compliance
Test Technician: Tim Bratz

Test Date: 3/17/08
NHTSA No.: C70207

<table>
<thead>
<tr>
<th>IMPACT ANGLE:</th>
<th>Zero Degrees</th>
</tr>
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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>X 5th female</td>
</tr>
<tr>
<td>PASSENGER DUMMY:</td>
<td>X 5th female</td>
</tr>
</tbody>
</table>

1. Using the markings made from data sheet 14.3 (If not done previously or steering repairs have been made, complete data sheet 14.3 at this time.) to position the steering controls in the mid-position or if applicable next lowest detent position. (S16.2.9)

2. Place the SCRP in the full rearward, mid-height position, and mid-seat cushion angle, determined during the completion of Data Sheet 14.1. (S16.3.2.1.1)

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

4. Fully recline the seat back. (S16.3.2.1.2)
   N/A seat back not adjustable.

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

6. Position the dummy in the seat such that the midsagittal plane is coincident with the longitudinal seat cushion markings as determined in Data Sheet 14.1. (S16.3.2.1.3 and S16.3.2.1.4)

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

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

9. Set the transverse distance between the centers of the front of the knees at 160 to 170 mm. (6.3 to 6.7 inches) Center the knee separation with respect to the longitudinal seat cushion marking as determined Data Sheet 14.1. (S16.3.2.1.6)
   Record Knee Separation 167

10. Push rearward on the dummy’s knees until the pelvis contacts the seat back, or the backs of the calves contact the seat cushion, whichever occurs first. (S16.3.2.1.6)
   X Pelvis contacted seat back.
   Calves contacted seat cushion.
11. Gently rock the upper torso ± 5 degrees (approximately 51 mm (2 inches)) side-to-side three times. (S16.3.2.1.7)

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

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

14. Rotate the left leg and thigh laterally to equalize the distance between each knee and the longitudinal seat cushion marking as determined in Data Sheet 14.1. (S16.3.2.1.8)

15. Attempt to return the seat to the foremost fore-aft position, mid-height, and seat cushion mid-angle as determined in Data Sheet 14.2. The foot may contact and depress the accelerator and/or change the angle of the foot with respect to the leg. (S16.3.2.1.8)
   - Foremost position achieved. Proceed to step 20.
   - Foremost not achieved because of foot interference. Proceed to step 17.
   - Foremost not achieved because of steering wheel contact.

16. If either of the dummy’s legs contact the steering wheel, move the steering wheel up the minimum amount required to avoid contact. If the steering wheel is not adjustable separate the knees the minimum required to avoid contact. (S16.3.2.1.8)
   - N/A - there was no leg contact
   - Steering wheel repositioned
   - Knees separated

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

18. Continue to move the seat. Use seat controls to line up the seat markings determined during the completion of Data Sheet 14.1 to set the foremost fore-aft position, mid-height position and the seat cushion mid-angle. If the dummy contacts the interior move the seat rearward until a maximum clearance of 5 mm (0.2 inches) is achieved or the seat is in the closest detent position that does not cause dummy contact. (S16.3.2.1.8)
   - Foremost, mid-height position and the seat cushion mid-angle reached
   - Dummy contact. Clearance set at maximum of 5mm
     - Measured Clearance ______________
   - Dummy Contact. Seat set at nearest detent position.
     - Seat position __ detent positions rearward of foremost (foremost is position zero)
19. If the steering wheel was repositioned in step 16, return the steering wheel to the original position. If the steering wheel contacts the dummy before reaching the original position, position the wheel until a maximum clearance of 5mm (.2 inches) is achieved, or the steering wheel is in the closest detent position that does not cause dummy contact. (S16.3.2.1.8)

N/A Steering wheel was not repositioned.
Original position achieved.
Dummy contact. Clearance set at maximum of 5mm
Measured Clearance _____________
Dummy Contact. Steering wheel set at nearest detent position.
Steering wheel position ___ detent positions upward of original position.
(Original position is position zero)

20. If the seat back is adjustable, rotate the seat back forward while holding the thighs in place. Continue rotating the seat back forward until the transverse instrument platform of the dummy head is level ± 0.5 degrees. If the head cannot be leveled using the seat back adjustment, or the seat back is not adjustable, use the lower neck bracket adjustment to level the head. If a level position cannot be achieved, minimize the angle. (S16.3.2.1.9)

Head Level Achieved. (Check all that apply)
   Head leveled using the adjustable seat back
   Head leveled using the neck bracket.
   Head Angle _____________ degrees

Head Level NOT Achieved. (Check all that apply)
   Head adjusted using the adjustable seat back
   Head adjusted using the neck bracket.
   Head Angle _____________ degrees

21. Verify the pelvis is not interfering with the seat bight. (S16.3.2.1.9)

   No interference
   Pelvis moved forward the minimum amount so that it is not caught in the seat bight.

22. Verify the dummy abdomen is properly installed. (S16.3.2.1.9)

   Abdomen still seated properly into dummy
   Abdomen was adjusted because it was not seated properly into dummy

23. Head Angle

   N/A, neither the pelvis nor the abdomen were adjusted.

23.1 Head still level (Go to 24)

   Head level adjusted

   Head Level Achieved. (Check all that apply)
   Head leveled using the adjustable seat back
   Head leveled using the neck bracket.
   Head Angle _____________ degrees

   Head Level NOT Achieved. (Check all that apply)
   Head level adjusted using the adjustable seat back
   Head level adjusted using the neck bracket.
   Head Angle _____________ degrees
24. If the dummy torso contacts the steering wheel while performing step 20, reposition the steering wheel in the following order to eliminate contact. (S16.3.2.1.9)

\[X\] N/A, No dummy torso contact with the steering wheel.

24.1 Adjust telescoping mechanism.

\[\_\] N/A No telescoping adjustment.

\[\_\] Adjustment performed (fill in appropriate change)

- Steering wheel moved ____ detent positions in the forward direction.
- Steering wheel moved ____ mm in the forward direction.

24.2 Adjust tilt mechanism.

\[\_\] N/A No tilt adjustment.

\[\_\] Adjustment performed.

- Steering wheel moved ____ detent positions Upward/Downward.
  (circle one)
- Steering wheel moved ____ degrees Upward/Downward

24.3 Adjust Seat in the aft direction.

\[\_\] No Adjustment performed.

\[\_\] Seat moved aft ____ mm from original position.

\[\_\] Seat moved aft ____ detent positions from the original position.

25. Measure and set the pelvic angle using the pelvic angle gage TE-2504. The pelvic angle should be 20.0 degrees ± 2.5 degrees. If the pelvic angle cannot be set to the specified range because the head will not be level or because the dummy will have need major repositioning, adjust the pelvis as closely as possible to the angle range, but keep the head level. (S16.3.2.1.11)

\[X\] Pelvic angle set to 20.0 degrees ± 2.5 degrees.

\[\_\] Pelvic angle of 20.0 degrees not achieved, the angular difference was minimized.

\[\_\] Record the pelvic angle. ____21.3____ degrees

26. Check the dummy for contact with the interior after completing adjustments. (S16.3.2.1.12)

\[X\] No contact.

\[\_\] Dummy in contact with interior.

- Seat moved aft ____ mm from the previous position.

- Seat moved aft ____ detent positions from the previous position.

27. Check the dummy to see if additional interior clearance is obtained, allowing the seat to be moved forward. (S16.3.2.1.12)

\[\_\] N/A, Seat already at foremost position.

\[X\] Clearance unchanged. No adjustments required.

\[\_\] Additional clearance available

- Seat moved Forward ____ mm from the previous position.

- Seat moved Forward ____ detent positions from the previous position.

28. Driver’s foot positioning, right foot. Place the foot perpendicular to the leg and determine if the heel contacts the floor pan at any leg position. If the heel contacts the floor pan proceed to step 29 otherwise, proceed to step 30. (S16.3.2.2.1)
29. Perform the following steps until either all steps are completed, or the foot contacts the accelerator pedal. Step 29.6 shall be completed in all cases. (S16.3.2.2.1(a))

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

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

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

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

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

29.6 Record foot position
   _ Pedal Contact achieved. Contact occurred at step __29.1__.___
   _ Heel contacts floor pan
   _ Heel set _____ mm from floor pan.
   _ Pedal Contact not achieved. Heel set _____ mm from the floor pan.
30. Perform the following steps until either all steps are completed, or the foot contacts the accelerator pedal. Step 30.5 shall be completed in all cases.

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

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

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

30.4 Align the centerline of the foot in the same horizontal plane as the centerline of the accelerator pedal. Place a tapered foam block as shown in Figure G1 under the heel with the shallow part of the taper facing forward. (S16.3.2.2.3)
30.5 Record foot position
   Pedal Contact achieved. Contact occurred at step ________.
   Heel set _____ mm from floor pan.
   Pedal Contact not achieved. Heel set _____ mm from the floor pan.

X 31. Driver’s foot positioning, left foot.

X 31.1 Place the foot perpendicular to the leg and determine if the heel contacts the floor pan at any leg position. If the heel contacts the floor pan proceed to step 31.2, otherwise position the leg as perpendicular to the thigh as possible with the foot parallel to the floor pan. (S16.2.2.6)

X 31.2 Place the foot on the toe board with the heel resting on the floor pan as close to the intersection of the floor pan and the toe board as possible. Adjust the angle of the foot if necessary to contact the toe board. If the foot will not contact the toe board, set the foot perpendicular to the leg, and set the heel on the floor pan as far forward as possible. Avoid contact with the brake pedal, clutch pedal, wheel well projection, and footrest. To avoid this contact use the following three manipulations in the order listed, with each subsequent option incorporating the previous, until contact is avoided: rotate the foot about the lower leg (abduction/adduction), plantar flex the foot, rotate the leg outboard about the hip. Movement should be the minimum amount necessary. If it is not possible to avoid all foot contact, give priority to avoiding brake or clutch pedal contact. (S16.2.2.4 & S16.2.2.5 & S16.2.2.7)
   X No contact
   Foot rotated about the leg (abduction/adduction)
   Foot rotated about the leg, and foot plantar flexed
   Foot rotated about the leg, foot plantar flexed, and the leg rotated about the hip.

X 31.3 Record foot position.
   Heel does not contact floor pan.
   Heel on floor pan and foot on toe board.
   Heel on floor pan and foot not on toe board.

X 32. Driver arm/hand positioning.

X 32.1 Place the dummy’s upper arms adjacent to the torso with the arm centerlines as close to a vertical longitudinal plane as possible. (S16.3.2.3.1)

X 32.2 Place the palms of the dummy in contact with the outer part of the steering wheel rim at its horizontal centerline with the thumbs over the steering wheel rim. (S16.3.2.3.2)

X 32.3 If it is not possible to position the thumbs inside the steering wheel rim at its horizontal centerline, then position them above and as close to the horizontal centerline of the steering wheel rim as possible. (S16.3.2.3.3)

X 32.4 Lightly tape the hands to the steering wheel rim so that if the hand of the test dummy is pushed upward by a force of not less than 9 N (2 lb) and not more than 22 N (5 lb), the tape releases the hand from the steering wheel rim. S16.3.2.3.4

X 33. Adjustable head restraints
   N/A, there is no head restraint adjustment
33.1 If the head restraint has an automatic adjustment, leave it where the system positions the restraint after the dummy is placed in the seat. (S16.3.4.1) Go to 34.

33.2 Adjust each head restraint vertically so that the mid-horizontal plane determined in Data Sheet 14.1 is aligned with the center of gravity (CG) of the dummy head. (S16.3.4.3)

X 33.3 If the above position is not attainable, move the vertical center of the head restraint to the closest detent below the center of the head CG. (S16.3.4.3)

N/A midpoint position attained in previous step
Headrest set at nearest detent below the head CG

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

34. Driver and passenger manual belt adjustment (for tests conducted with a belted dummy). (S16.3.5) UNBELTED TEST

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

Manufacturer’s specified position ________________________________
Actual Position _________________________________________________

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

34.3 Ensure that the dummy’s head remains as level as possible. (S16.3.5.3)

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

REMARKS:

I certify that I have read and performed each instruction.

Signature: ___________________________ Date: 3/17/08
APPENDIX G

DUMMY POSITIONING PROCEDURES
FOR 5th% PASSENGER TEST DUMMY CONFORMING TO SUBPART O OF PART 572

Test Vehicle: 2007 Ford Mustang
Test Program: FMVSS 208 Compliance
Test Technician: Joe Fleck
NHTSA No.: C70207
Test Date: 3/17/08

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: X 5th female | 50th male
PASSENGER DUMMY: X 5th female | 50th male

(Check this item ONLY if it applies to this vehicle.)

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

1. Place the SCRP in the full rearward, mid-height position, and mid-seat cushion angle, determined during the completion of Data Sheet 14.1. (S16.3.3.1.1)

2. Fully recline the seat back. (S16.3.3.1.2)
   __ N/A seat back not adjustable.

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

4. Position the dummy in the seat such that the midsagittal plane is coincident with the longitudinal seat cushion marking that was determined in Data Sheet 14.1. (S16.3.3.1.3 and S16.3.3.1.4)

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

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

7. Set the transverse distance between the centers of the front of the knees at 160 to 170 mm. (6.3 to 6.7 inches). Center the knee separation with respect to the longitudinal seat cushion marking that was determined Data Sheet 14.1. (S16.3.3.1.6)
   Record Knee Separation __165__

8. Push rearward on the dummy’s knees until the pelvis contacts the seat back, or the backs of the calves contact the seat cushion, whichever occurs first. (S16.3.3.1.6)
   X Pelvis contacted seat back.
   __Calves contacted seat cushion.

9. Gently rock the upper torso ± 5 degrees (approximately 51 mm (2 inches)) side-to-side three times. (S16.3.3.1.7)
10. If needed, extend the legs until the feet do not contact the floor pan. The thighs should be resting on the seat cushion. (S16.3.3.1.8)

11. Use seat controls to line up the seat markings determined during the completion of Data Sheet 14.1 to set the foremost fore-aft position, mid-height position and the seat cushion mid-angle. If the dummy contacts the interior move the seat rearward until a maximum clearance of 5 mm (0.2 inches) is achieved or the seat is in the closest detent position that does not cause dummy contact. (S16.3.3.1.8)

   - Foremost, mid-height position and the seat cushion mid-angle reached
   - Dummy contact. Clearance set at maximum of 5mm
     - Measured Clearance ________________
   - Dummy Contact. Seat set at nearest detent position.
     - Seat position ___ detent positions rearward of foremost
     (foremost is position zero)

12. If the seat back is adjustable, rotate the seat back forward while holding the thighs in place. Continue rotating the seat back forward until the transverse instrument platform of the dummy head is level ± 0.5 degrees. If head cannot be leveled using the seat back adjustment, or the seat back is not adjustable, use the lower neck bracket adjustment to level the head. If a level position cannot be achieved, adjust the head as closely as possible to the ± 0.5 degree range. (S16.3.3.1.9 and S16.3.3.1.10)

   - Check All That Apply
     - Seat back not adjustable
     - Seat back not independent of driver side seat back
     - Head Level Achieved. (Check all that apply)
       - Head leveled using the adjustable seat back
       - Head leveled using the neck bracket.
         - Head Angle ______ 0.4 ______ degrees
     - Head Level NOT Achieved. (Check all that apply)
       - Head adjusted using the adjustable seat back
       - Head adjusted using the neck bracket.
         - Head Angle ______________ degrees

13. Verify the pelvis is not interfering with the seat bight. (S16.3.3.1.9)

   - Check All That Apply
     - No interference
     - Pelvis moved forward the minimum amount so that it is not caught in the seat bight.

14. Verify the dummy abdomen is properly installed. (S16.3.3.1.9)

   - Check All That Apply
     - Abdomen still seated properly into dummy
     - Abdomen was adjusted because it was not seated properly into dummy

15. Head Angle

   - Check All That Apply
     - N/A, neither the pelvis nor the abdomen were adjusted.

15.1 Head still level (Go to 16)
15.2 Head level adjusted
   __Head Level Achieved. (Check all that apply)
      __Head leveled using the adjustable seat back
      __Head leveled using the neck bracket.
      Head Angle ____________ degrees
   __Head Level NOT Achieved. (Check all that apply)
      __Head adjusted using the adjustable seat back
      __Head adjusted using the neck bracket.
      Head Angle ____________ degrees

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

   X Pelvic angle set to 20.0 degrees ± 2.5 degrees.
   __Pelvic angle of 20.0 degrees not achieved, the angular difference was minimized.
   X Record the pelvic angle. ____20.8 _____ degrees

17. Check the dummy for contact with the interior after completing adjustments.
   X No contact.
   __Dummy in contact with interior.
      __Seat moved aft ___ mm from the previous position.
      __Seat moved aft ___ detent positions from the previous position.

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

   X Head Level Achieved
      __Head Angle ____________ degrees
   __Head Level NOT Achieved.
      Head Angle ____________ degrees

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

   __N/A Bench Seat
   X N/A Seat already at full forward position.
      __Clearance unchanged. No adjustments required.
      __Additional clearance available
      __Seat moved Forward ___ mm from the previous position.
      __Seat moved Forward ___ detent positions from the previous position.
      __Seat moved Forward, Full Forward position reached.

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

   __20.1 Place feet flat on the toe board; OR (S16.3.3.2.1)

   X 20.2 If the feet cannot be placed flat on the toe board, set the feet perpendicular to the lower leg, and rest the heel as far forward on the floor pan as possible; OR (S16.3.3.2.2)

   __20.3 If the heels do not touch the floor pan, set the legs as perpendicular to the thighs as possible and set the feet parallel to the floor pan. (S16.3.3.2.2)
21. Passenger arm/hand positioning. (S16.3.3.3)

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

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

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

22. Adjustable head restraints (S16.3.4)

- N/A, there is no head restraint adjustment

- 22.1 If the head restraint has an automatic adjustment, leave it where the system positions the restraint after the dummy is placed in the seat. (S16.3.4.1) Go to 23.

- 22.2 Adjust each head restraint vertically so that the horizontal plane determined in Data Sheet 14.1 is aligned with the center of gravity (CG) of the dummy head. (S16.3.4.3)

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

- N/A midpoint position attained in previous step

- Headrest set at nearest detent below the head CG

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

23. Manual belt adjustment (for tests conducted with a belted dummy) S16.3.5

- N/A, Unbelted test

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

  Manufacturer’s specified position ________________________________
  Actual Position ________________________________________

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

- 23.3 Ensure that the dummy’s head remains as level as possible. (S16.3.5.3)

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

REMARKS:

I certify that I have read and performed each instruction.

Signature: ___________________________ Date: 3/17/08
DATA SHEET 37
DUMMY MEASUREMENTS

Test Vehicle: 2007 Ford Mustang
Test Program: FMVSS 208 Compliance
Test Technician: Joe Fleck

NHTSA No.: C70207
Test Date: 3/17/08

DUMMY MEASUREMENTS FOR FRONT SEAT OCCUPANTS

Test Vehicle: 2007 Ford Mustang
Test Program: FMVSS 208 Compliance
Test Technician: Joe Fleck

NHTSA No.: C70207
Test Date: 3/17/08

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

Vertical Transverse Plane
Vertical Longitudinal Planes
## DATA SHEET 37

### DUMMY MEASUREMENTS

**Test Vehicle:** 2007 Ford Mustang  
**Test Program:** FMVSS 208 Compliance  
**Test Technician:** Joe Fleck  
**NHTSA No.:** C70207  
**Test Date:** 3/17/08

### TEST DUMMY POSITION MEASUREMENTS

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<thead>
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<th>Code</th>
<th>Measurement Description</th>
<th>Driver SN 507</th>
<th>Passenger SN 510</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Length (mm)</td>
<td>Length (mm)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Angle (°)</td>
<td>Angle (°)</td>
</tr>
<tr>
<td>WA</td>
<td>Windshield Angle</td>
<td>28.6</td>
<td></td>
</tr>
<tr>
<td>SWA</td>
<td>Steering Wheel Angle</td>
<td>69.9</td>
<td></td>
</tr>
<tr>
<td>SCA</td>
<td>Steering Column Angle</td>
<td>23.1</td>
<td></td>
</tr>
<tr>
<td>SA</td>
<td>Seat Back Angle (On Headrest Post)</td>
<td>10.6</td>
<td>11.4</td>
</tr>
<tr>
<td>HZ</td>
<td>Head to Roof (Z)</td>
<td>196</td>
<td>210</td>
</tr>
<tr>
<td>HH</td>
<td>Head to Header</td>
<td>249</td>
<td>250</td>
</tr>
<tr>
<td>HW</td>
<td>Head to Windshield</td>
<td>575</td>
<td>566</td>
</tr>
<tr>
<td>HR</td>
<td>Head to Side Header (Y)</td>
<td>245</td>
<td>233</td>
</tr>
<tr>
<td>NR</td>
<td>Nose to Rim</td>
<td>251</td>
<td>233</td>
</tr>
<tr>
<td>CD</td>
<td>Chest to Dash</td>
<td>437</td>
<td>349</td>
</tr>
<tr>
<td>CS</td>
<td>Chest to Steering Hub</td>
<td>206</td>
<td>7.6</td>
</tr>
<tr>
<td>RA</td>
<td>Rim to Abdomen</td>
<td>91</td>
<td>0.2</td>
</tr>
<tr>
<td>KDL</td>
<td>Left Knee to Dash</td>
<td>86</td>
<td>34.1</td>
</tr>
<tr>
<td>KDR</td>
<td>Right Knee to Dash</td>
<td>75</td>
<td>90</td>
</tr>
<tr>
<td>PA</td>
<td>Pelvic Angle</td>
<td>91</td>
<td></td>
</tr>
<tr>
<td>TA</td>
<td>Tibia Angle</td>
<td>41.1</td>
<td>43.7</td>
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<tr>
<td>KK</td>
<td>Knee to Knee (Y)</td>
<td>256</td>
<td>225</td>
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<tr>
<td>SK</td>
<td>Striker to Knee</td>
<td>939</td>
<td>950</td>
</tr>
<tr>
<td>ST</td>
<td>Striker to Head</td>
<td>619</td>
<td>601</td>
</tr>
<tr>
<td>SH</td>
<td>Striker to H-Point</td>
<td>620</td>
<td>619</td>
</tr>
<tr>
<td>SHY</td>
<td>Striker to H-Point (Y)</td>
<td>315</td>
<td>297</td>
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<tr>
<td>HS</td>
<td>Head to Side Window</td>
<td>380</td>
<td>346</td>
</tr>
<tr>
<td>HD</td>
<td>H-Point to Door (Y)</td>
<td>171</td>
<td>164</td>
</tr>
<tr>
<td>AD</td>
<td>Arm to Door (Y)</td>
<td>158</td>
<td>161</td>
</tr>
<tr>
<td>AA</td>
<td>Ankle to Ankle</td>
<td>251</td>
<td>200</td>
</tr>
</tbody>
</table>
### SEAT BELT POSITIONING DATA

**DUMMY’S CENTERLINE**

**SHOULDER BELT PORTION**

**TBI**

**‘D’ RING**

**LAP BELT PORTION**

**PBU**

**PBL**

**MALE BLADE**

**BUCKLE ASSEMBLY**

**1/8" THICK ALUMINUM PLATE**

**FLOORPAN**

**OUTBOARD ANCHORAGE**

**INBOARD ANCHORAGE**

**EMERGENCY LOCKING RETRACTOR**

**REEL**

### FRONT VIEW OF DUMMY

#### SEAT BELT POSITIONING MEASUREMENTS

<table>
<thead>
<tr>
<th>Measurement Description</th>
<th>Units</th>
<th>Driver</th>
<th>Passenger</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBU - Top surface of reference to belt upper edge</td>
<td>mm</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PBL - Top surface of reference to belt lower edge</td>
<td>mm</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
**DATA SHEET 38**

**CRASH TEST**

**Test Vehicle:** 2007 Ford Mustang  
**Test Program:** FMVSS 208 Compliance  
**Test Technician:** Joe Fleck  
**NHTSA No.:** C70207  
**Test Date:** 3/17/08

### 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:
- X 5th female
- 50th male

### PASSENGER DUMMY:
- X 5th female
- 50th male

---

1. Vehicle underbody painted
2. The speed measuring devices are in place and functioning.
3. The speed measuring devices are 1.0 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. Instrumentation and wires are placed so the motion of the dummies during impact is not affected.
6. Tires inflated to pressure on tire placard or if it does not have a tire placard because it is not a passenger car, then inflated to the tire pressure specified in the owner information.
   - 240 kpa front left tire
   - 240 kpa front right tire
   - 240 kpa rear left tire
   - 240 kpa rear right tire

7. Time zero contacts on barrier in place.
8. Pre test zero and shunt calibration adjustments performed and recorded
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 39.9 kmph
17. Vehicle rebound from the barrier 397 cm
18. Describe whether the doors open after the test and what method is used to open the doors.
   - X Left Front Door: Door remained closed and latched; Door opened without tools
   - X Right Front Door: Door remained closed and latched; Door opened without tools
   - X Left Rear Door: Door remained closed and latched; Door opened without tools
   - X Right Rear Door: Door remained closed and latched; Door opened without tools
19. Describe the contact points of the dummy with the interior of the vehicle.
   - Driver Dummy: Head to Air Bag, Visor, and Headrest; Chest to Air Bag; Knees to Knee Bolster
   - Passenger Dummy: Head to Air Bag and Headrest; Chest to Air Bag; Knees to Glove Box

REMARKS:

I certify that I have read and performed each instruction.

Signature: [Signature] Date: 3/17/08
### Accident Investigation Measurements

**Test Vehicle:** 2007 Ford Mustang  
**NHTSA No.:** C70207  
**Test Program:** FMVSS 208 Compliance  
**Test Date:** 3/17/08  
**Test Technician:** Jamie Aide

#### 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:
- **X** 5th female  
- **__** 50th male

#### Passenger Dummy:
- **X** 5th female  
- **__** 50th male

#### Vehicle Year/Make/Model/Body Style:
- 2007 Ford Mustang Passenger Car

#### VIN:
- 1ZVFT80N475325885

#### Wheelbase:
- 2717 mm

#### Build Date:
- 03/07

#### Vehicle Size Category:
- 3

#### Test Weight:
- 1687.4 kg

#### Front Overhang:
- 939 mm

#### Overall Width:
- 1823 mm

#### Overall Length Center:
- 4699 mm

#### Accelerometer Data

- **Location:** As per measurements on Data Sheet 33
- **Linearity:** >99.9%
- **Integration Algorithm:** Trapezoidal
- **Vehicle Impact Speed:** 39.9 kmph
- **Time of Separation:** 106.6 ms
- **Velocity Change:** 44.8 kmph
CRUSH PROFILE

Collision Deformation Classification: 12FDEW6
Midpoint of Damage: Vehicle Longitudinal Centerline
Damage Region Length (mm): 1524
Impact Mode: Frontal Barrier

<table>
<thead>
<tr>
<th>No.</th>
<th>Measurement Description</th>
<th>Units</th>
<th>Pre-Test</th>
<th>Post-Test</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Crush zone 1 at left side</td>
<td>mm</td>
<td>4471</td>
<td>4314</td>
<td>157</td>
</tr>
<tr>
<td>C2</td>
<td>Crush zone 2 at left side</td>
<td>mm</td>
<td>4611</td>
<td>4385</td>
<td>226</td>
</tr>
<tr>
<td>C3</td>
<td>Crush zone 3 at left side</td>
<td>mm</td>
<td>4667</td>
<td>4421</td>
<td>246</td>
</tr>
<tr>
<td>C4</td>
<td>Crush zone 4 at right side</td>
<td>mm</td>
<td>4665</td>
<td>4432</td>
<td>233</td>
</tr>
<tr>
<td>C5</td>
<td>Crush zone 5 at right side</td>
<td>mm</td>
<td>4608</td>
<td>4404</td>
<td>204</td>
</tr>
<tr>
<td>C6</td>
<td>Crush zone 6 at right side</td>
<td>mm</td>
<td>4467</td>
<td>4298</td>
<td>169</td>
</tr>
</tbody>
</table>

REMARKS:

I certify that I have read and performed each instruction.

Signature: ____________________  Date: 3/17/08
DATA SHEET 41
WINDSHIELD MOUNTING (FMVSS 212)

Test Vehicle: 2007 Ford Mustang
Test Program: FMVSS 208 Compliance
Test Technician: Jamie Aide
NHTSA No.: C70207
Test Date: 3/17/08

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: X 5th female   ___ 50th male
PASSENGER DUMMY: X 5th female   ___ 50th male

1. Pre-Crash
   1.1 Describe from visual inspection how the windshield is mounted and describe any trim material.
   Retained with glue
   Rubber trim
   1.2 Mark the longitudinal centerline of the windshield
   1.3 Measure pre-crash A, B, and C for the left side and record in the chart below.
   1.4 Measure pre-crash C, D, and E for the right side and record in the chart below.
   1.5 Measure from the edge of the retainer or molding to the edge of the windshield.
   Dimension G (mm): 14 mm

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?
   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
WINDSHIELD RETENTION MEASUREMENTS

<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>617</td>
<td>617</td>
<td>100%</td>
</tr>
<tr>
<td>B</td>
<td>715</td>
<td>715</td>
<td>100%</td>
</tr>
<tr>
<td>C</td>
<td>774</td>
<td>774</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>2106</td>
<td>2106</td>
<td>100%</td>
</tr>
<tr>
<td>Left Side</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>617</td>
<td>617</td>
<td>100%</td>
</tr>
<tr>
<td>E</td>
<td>715</td>
<td>715</td>
<td>100%</td>
</tr>
<tr>
<td>F</td>
<td>774</td>
<td>774</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>2106</td>
<td>2106</td>
<td>100%</td>
</tr>
<tr>
<td>Right Side</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Indicate area of mounting failure. NONE

FRONT VIEW OF WINDSHIELD

INDICATE WIDTH OF MOLDING

ZERO POINT (0,0)

REMARKS:

I certify that I have read and performed each instruction.

Signature: [Signature] Date: 3/17/08
DATA SHEET 42
WINDSHIELD ZONE INTRUSION (FMVSS 219)

Test Vehicle: 2007 Ford Mustang  
Test Program: FMVSS 208 Compliance  
Test Technician: Jamie Aide  
NHTSA No.: C70207  
Test Date: 3/17/08

<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: | X 5th female  
                50th male |
| PASSENGER DUMMY: | X 5th female  
                  50th male |

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.
WINDSHIELD DIMENSIONS

<table>
<thead>
<tr>
<th>Item</th>
<th>Units</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>mm</td>
<td>1234</td>
</tr>
<tr>
<td>B</td>
<td>mm</td>
<td>346</td>
</tr>
<tr>
<td>C</td>
<td>mm</td>
<td>1548</td>
</tr>
<tr>
<td>D</td>
<td>mm</td>
<td>715</td>
</tr>
<tr>
<td>E</td>
<td>mm</td>
<td>345</td>
</tr>
<tr>
<td>F</td>
<td>mm</td>
<td>596</td>
</tr>
</tbody>
</table>

AREA OF PROTECTED ZONE FAILURES:

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

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</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>
<tbody>
<tr>
<td>NONE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
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<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

REMARKS:

I certify that I have read and performed each instruction.

Signature: [Signature] Date: 3/17/08
DATA SHEET 43
FUEL SYSTEM INTEGRITY (FMVSS 301)

Test Vehicle: 2007 Ford Mustang  
Test Program: FMVSS 208 Compliance  
Test Technician: Daniel Sienko

TYPE OF IMPACT: 25 mph Unbelted Flat Frontal

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: None

<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>123</td>
<td>300</td>
<td>0.0</td>
</tr>
<tr>
<td>90° to 180°</td>
<td>118</td>
<td>300</td>
<td>0.0</td>
</tr>
<tr>
<td>180° to 270°</td>
<td>116</td>
<td>300</td>
<td>0.0</td>
</tr>
<tr>
<td>270° to 360°</td>
<td>116</td>
<td>300</td>
<td>0.0</td>
</tr>
<tr>
<td>Figure No.</td>
<td>Description</td>
<td>Page No.</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Driver Head X Acceleration vs. Time</td>
<td>A-1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Driver Head Y Acceleration vs. Time</td>
<td>A-1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Driver Head Z Acceleration vs. Time</td>
<td>A-1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Driver Head Resultant Acceleration vs. Time</td>
<td>A-1</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Driver Head X Velocity vs. Time</td>
<td>A-2</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Driver Head Y Velocity vs. Time</td>
<td>A-2</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Driver Head Z Velocity vs. Time</td>
<td>A-2</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Driver Neck Force X vs. Time</td>
<td>A-3</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Driver Neck Force Y vs. Time</td>
<td>A-3</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Driver Neck Force Z vs. Time</td>
<td>A-3</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Driver Neck Force Resultant vs. Time</td>
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</tr>
<tr>
<td>12</td>
<td>Driver Neck Moment X vs. Time</td>
<td>A-4</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Driver Neck Moment Y vs. Time</td>
<td>A-4</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Driver Neck Moment Z vs. Time</td>
<td>A-4</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Driver Neck Moment Resultant vs. Time</td>
<td>A-4</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Driver Chest X Acceleration vs. Time</td>
<td>A-5</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Driver Chest Y Acceleration vs. Time</td>
<td>A-5</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Driver Chest Z Acceleration vs. Time</td>
<td>A-5</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Driver Chest Resultant Acceleration vs. Time</td>
<td>A-5</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Driver Chest X Velocity vs. Time</td>
<td>A-6</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Driver Chest Y Velocity vs. Time</td>
<td>A-6</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Driver Chest Z Velocity vs. Time</td>
<td>A-6</td>
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<td>23</td>
<td>Driver Chest Displacement vs. Time</td>
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</tr>
<tr>
<td>24</td>
<td>Driver Left Femur Force vs. Time</td>
<td>A-7</td>
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</tr>
<tr>
<td>25</td>
<td>Driver Right Femur Force vs. Time</td>
<td>A-7</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Passenger Head X Acceleration vs. Time</td>
<td>A-8</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Passenger Head Y Acceleration vs. Time</td>
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<td>28</td>
<td>Passenger Head Z Acceleration vs. Time</td>
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<td></td>
</tr>
<tr>
<td>29</td>
<td>Passenger Head Resultant Acceleration vs. Time</td>
<td>A-8</td>
<td></td>
</tr>
</tbody>
</table>
Figure No. 30. Passenger Head X Velocity vs. Time A-9
Figure No. 31. Passenger Head Y Velocity vs. Time A-9
Figure No. 32. Passenger Head Z Velocity vs. Time A-9
Figure No. 33. Passenger Neck Force X vs. Time A-10
Figure No. 34. Passenger Neck Force Y vs. Time A-10
Figure No. 35. Passenger Neck Force Z vs. Time A-10
Figure No. 36. Passenger Neck Force Resultant vs. Time A-10
Figure No. 37. Passenger Neck Moment X vs. Time A-11
Figure No. 38. Passenger Neck Moment Y vs. Time A-11
Figure No. 39. Passenger Neck Moment Z vs. Time A-11
Figure No. 40. Passenger Neck Moment Resultant vs. Time A-11
Figure No. 41. Passenger Chest X Acceleration vs. Time A-12
Figure No. 42. Passenger Chest Y Acceleration vs. Time A-12
Figure No. 43. Passenger Chest Z Acceleration vs. Time A-12
Figure No. 44. Passenger Chest Resultant Acceleration vs. Time A-12
Figure No. 45. Passenger Chest X Velocity vs. Time A-13
Figure No. 46. Passenger Chest Y Velocity vs. Time A-13
Figure No. 47. Passenger Chest Z Velocity vs. Time A-13
Figure No. 48. Passenger Chest Displacement vs. Time A-13
Figure No. 49. Passenger Left Femur Force vs. Time A-14
Figure No. 50. Passenger Right Femur Force vs. Time A-14
Figure No. 51. Driver Nij (N_{TF}) vs. Time A-15
Figure No. 52. Driver Nij (N_{TE}) vs. Time A-15
Figure No. 53. Driver Nij (N_{CF}) vs. Time A-15
Figure No. 54. Driver Nij (N_{CE}) vs. Time A-15
Figure No. 55. Passenger Nij (N_{TF}) vs. Time A-16
Figure No. 56. Passenger Nij (N_{TE}) vs. Time A-16
Figure No. 57. Passenger Nij (N_{CF}) vs. Time A-16
Figure No. 58. Passenger Nij (N_{CE}) vs. Time A-16
Figure No. 59. Driver Occipital Condyle Moment vs. Time A-17
| Figure No. 60. | Passenger Occipital Condyle Moment vs. Time | A-17 |
| Figure No. 61. | Left Rear Seat Crossmember X Acceleration vs. Time | A-18 |
| Figure No. 62. | Left Rear Seat Crossmember X Velocity vs. Time | A-18 |
| Figure No. 63. | Right Rear Seat Crossmember X Acceleration vs. Time | A-18 |
| Figure No. 64. | Right Rear Seat Crossmember X Velocity vs. Time | A-18 |
| Figure No. 65. | Top of Engine X Acceleration vs. Time | A-19 |
| Figure No. 66. | Top of Engine X Velocity vs. Time | A-19 |
| Figure No. 67. | Bottom of Engine X Acceleration vs. Time | A-19 |
| Figure No. 68. | Bottom of Engine X Velocity vs. Time | A-19 |
| Figure No. 69. | Left Brake Caliper X Acceleration vs. Time | A-20 |
| Figure No. 70. | Left Brake Caliper X Velocity vs. Time | A-20 |
| Figure No. 71. | Right Brake Caliper X Acceleration vs. Time | A-20 |
| Figure No. 72. | Right Brake Caliper X Velocity vs. Time | A-20 |
| Figure No. 73. | Instrument Panel X Acceleration vs. Time | A-21 |
| Figure No. 74. | Instrument Panel X Velocity vs. Time | A-21 |
| Figure No. 75. | Trunk Z Acceleration vs. Time | A-21 |
| Figure No. 76. | Trunk Z Velocity vs. Time | A-21 |
| Figure No. 77. | Barrier Force – Upper Left vs. Time | A-22 |
| Figure No. 78. | Barrier Force – Upper Center vs. Time | A-22 |
| Figure No. 79. | Barrier Force – Upper Right vs. Time | A-22 |
| Figure No. 80. | Barrier Force – Lower Left vs. Time | A-23 |
| Figure No. 81. | Barrier Force – Lower Center vs. Time | A-23 |
| Figure No. 82. | Barrier Force – Lower Right vs. Time | A-23 |
| Figure No. 83. | Barrier Force – Sum Left vs. Time | A-24 |
| Figure No. 84. | Barrier Force – Sum Center vs. Time | A-24 |
| Figure No. 85. | Barrier Force – Sum Right vs. Time | A-24 |
| Figure No. 86. | Barrier Force – Sum All vs. Time | A-24 |
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)
Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

Max: 5.9 G's
Tmax: 298.6 ms
Min: -35.2 G's
Tmin: 43.9 ms
CFC 1000

Max: 7.6 G's
Tmax: 122.4 ms
Min: -5.1 G's
Tmin: 22.6 ms
CFC 1000

Max: 9.5 G's
Tmax: 108.9 ms
Min: -9.5 G's
Tmin: 31.7 ms
CFC 1000

Max: 35.4 G's
Tmax: 43.9 ms
Min: 0.0 G's
Tmin: 5.4 ms
CFC 1000
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)

Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

DRIVER HEAD X Velocity (kph) vs TIME (ms)
Max: 39.9 kph
Tmax: 8.1 ms
Min: -18.5 kph
Tmin: 166.8 ms
CFC 180

DRIVER HEAD Y Velocity (kph) vs TIME (ms)
Max: 10.5 kph
Tmax: 159.7 ms
Min: -0.2 kph
Tmin: 23.9 ms
CFC 180

DRIVER HEAD Z Velocity (kph) vs TIME (ms)
Max: 21.9 kph
Tmax: 300.0 ms
Min: -0.5 kph
Tmin: 55.8 ms
CFC 180
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)

Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

DRIVER NECK FX (N) vs TIME (ms)
Max: 645.4 N
Tmax: 70.7 ms
Min: -193.6 N
Tmin: 29.6 ms
CFC 1000

DRIVER NECK FY (N) vs TIME (ms)
Max: 85.7 N
Tmax: 116.4 ms
Min: -90.0 N
Tmin: 72.1 ms
CFC 1000

DRIVER NECK FZ (N) vs TIME (ms)
Max: 946.6 N
Tmax: 41.8 ms
Min: -91.7 N
Tmin: 84.4 ms
CFC 1000

DRIVER NECK FResultant (N) vs TIME (ms)
Max: 1008.8 N
Tmax: 41.8 ms
Min: 0.5 N
Tmin: 10.7 ms
CFC 1000
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)

Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

Max: 10.9 Nm
Tmax: 127.4 ms
Min: -2.9 Nm
Tmin: 25.5 ms
CFC 600

Max: 43.3 Nm
Tmax: 47.0 ms
Min: -13.3 Nm
Tmin: 29.8 ms
CFC 600

Max: 1.6 Nm
Tmax: 235.8 ms
Min: -7.8 Nm
Tmin: 80.0 ms
CFC 600

Max: 43.3 Nm
Tmax: 47.0 ms
Min: 0.0 Nm
Tmin: 0.0 ms
CFC 600
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)

Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

- DRIVER CHEST X (G's) vs TIME (ms)
  - Max: 2.0 G's
  - Tmax: 300.0 ms
  - Min: -27.7 G's
  - Tmin: 46.9 ms
  - CFC 180

- DRIVER CHEST Y (G's) vs TIME (ms)
  - Max: 2.1 G's
  - Tmax: 67.7 ms
  - Min: -1.7 G's
  - Tmin: 41.7 ms
  - CFC 180

- DRIVER CHEST Z (G's) vs TIME (ms)
  - Max: 4.9 G's
  - Tmax: 80.2 ms
  - Min: -7.7 G's
  - Tmin: 51.3 ms
  - CFC 180

- DRIVER CHEST Resultant (G's) vs TIME (ms)
  - Max: 28.4 G's
  - Tmax: 47.0 ms
  - Min: 0.0 G's
  - Tmin: 4.7 ms
  - CFC 180
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)

Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

DRIVER CHEST X Velocity (kph) vs TIME (ms)
Max: 39.9 kph
Tmax: 0.0 ms
Min: -10.3 kph
Tmin: 138.5 ms
CFC 180

DRIVER CHEST Y Velocity (kph) vs TIME (ms)
Max: 1.2 kph
Tmax: 74.8 ms
Min: -0.1 kph
Tmin: 25.4 ms
CFC 180

DRIVER CHEST Z Velocity (kph) vs TIME (ms)
Max: 3.3 kph
Tmax: 300.0 ms
Min: -6.1 kph
Tmin: 73.1 ms
CFC 180

DRIVER CHEST DISPLACEMENT (mm) vs TIME (ms)
Max: 0.3 mm
Tmax: 16.8 ms
Min: -9.7 mm
Tmin: 82.9 ms
CFC 600
2007 FORD MUSTANG (C70207)

Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

Driver Left Femur:
Max: 143.8 N
Tmax: 146.0 ms
Min: -3658.7 N
Tmin: 46.9 ms
CFC 600

Driver Right Femur:
Max: 163.5 N
Tmax: 194.2 ms
Min: -3541.0 N
Tmin: 53.3 ms
CFC 600
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)

Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

PASSENGER HEAD X Velocity (kph) vs TIME (ms)
Max: 40.1 kph
Tmax: 29.7 ms
Min: -16.0 kph
Tmin: 197.9 ms
CFC 180

PASSENGER HEAD Y Velocity (kph) vs TIME (ms)
Max: 4.3 kph
Tmax: 247.2 ms
Min: -0.2 kph
Tmin: 60.5 ms
CFC 180

PASSENGER HEAD Z Velocity (kph) vs TIME (ms)
Max: 0.0 kph
Tmax: 8.2 ms
Min: -30.5 kph
Tmin: 139.6 ms
CFC 180
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)

Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

PASSENGER NECK MX (Nm) vs TIME (ms)
Max: 2.0 Nm
Tmax: 36.5 ms
Min: -12.8 Nm
Tmin: 80.4 ms
CFC 600

PASSENGER NECK MY (Nm) vs TIME (ms)
Max: 21.4 Nm
Tmax: 211.2 ms
Min: -41.9 Nm
Tmin: 70.9 ms
CFC 600

PASSENGER NECK MZ (Nm) vs TIME (ms)
Max: 2.0 Nm
Tmax: 182.7 ms
Min: -1.8 Nm
Tmin: 80.1 ms
CFC 600

PASSENGER NECK MRresultant (Nm) vs TIME (ms)
Max: 42.4 Nm
Tmax: 69.9 ms
Min: 0.1 Nm
Tmin: 0.0 ms
CFC 600
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)

Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

PASSENGER CHEST X (G's) vs TIME (ms)
Max: 9.3 G's
Tmax: 206.3 ms
Min: -36.2 G's
Tmin: 82.7 ms
CFC 180

PASSENGER CHEST Y (G's) vs TIME (ms)
Max: 2.0 G's
Tmax: 40.6 ms
Min: -1.9 G's
Tmin: 62.8 ms
CFC 180

PASSENGER CHEST Z (G's) vs TIME (ms)
Max: 29.4 G's
Tmax: 85.1 ms
Min: -9.1 G's
Tmin: 57.4 ms
CFC 180

PASSENGER CHEST Resultant (G's) vs TIME (ms)
Max: 46.6 G's
Tmax: 82.4 ms
Min: 0.0 G's
Tmin: 0.0 ms
CFC 180
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)

Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

PASSENGER CHEST X Velocity (kph) vs TIME (ms)
Max: 39.9 kph
Tmax: 0.0 ms
Min: -13.8 kph
Tmin: 152.4 ms
CFC 180

PASSENGER CHEST Y Velocity (kph) vs TIME (ms)
Max: 0.8 kph
Tmax: 273.2 ms
Min: -0.4 kph
Tmin: 146.8 ms
CFC 180

PASSENGER CHEST Z Velocity (kph) vs TIME (ms)
Max: 30.8 kph
Tmax: 258.7 ms
Min: -6.4 kph
Tmin: 63.8 ms
CFC 180

PASSENGER CHEST DISPLACEMENT (mm) vs TIME (ms)
Max: 1.3 mm
Tmax: 60.2 ms
Min: -4.2 mm
Tmin: 83.6 ms
CFC 600
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)

Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

PASSENGER LEFT FEMUR (N) vs TIME (ms)
Max: 576.6 N
Tmax: 128.9 ms
Min: -3222.4 N
Tmin: 56.9 ms
CFC 600

PASSENGER RIGHT FEMUR (N) vs TIME (ms)
Max: 269.5 N
Tmax: 117.7 ms
Min: -3942.8 N
Tmin: 55.8 ms
CFC 600
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)

Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)

Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

Pass. nij (NTF) () vs TIME (ms)
Max: 0.2
Tmax: 208.9 ms
Min: 0.0
Tmin: 0.0 ms
CFC 600

Pass. nij (NTE) () vs TIME (ms)
Max: 0.8
Tmax: 68.2 ms
Min: 0.0
Tmin: 0.0 ms
CFC 600

Pass. nij (NCF) () vs TIME (ms)
Max: 0.1
Tmax: 239.1 ms
Min: 0.0
Tmin: 0.0 ms
CFC 600

Pass. nij (NCE) () vs TIME (ms)
Max: 0.7
Tmax: 100.1 ms
Min: 0.0
Tmin: 0.0 ms
CFC 600
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)
Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

Max: 33.4 Nm
Tmax: 47.0 ms
Min: -10.0 Nm
Tmin: 29.9 ms
CFC 600

Max: 19.7 Nm
Tmax: 211.2 ms
Min: -43.9 Nm
Tmin: 99.2 ms
CFC 600
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)

Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

A-18

LEFT REAR SEAT CROSSMEMBER X (G's) vs TIME (ms)
Max: 1.3 G's
Tmax: 130.4 ms
Min: -28.9 G's
Tmin: 27.6 ms
CFC 60

LEFT REAR SEAT CROSSMEMBER X Velocity (kph) vs TIME (ms)
Max: 39.9 kph
Tmax: 0.0 ms
Min: -4.8 kph
Tmin: 106.0 ms
CFC 180

RIGHT REAR SEAT CROSSMEMBER X (G's) vs TIME (ms)
Max: 1.3 G's
Tmax: 126.7 ms
Min: -24.8 G's
Tmin: 27.2 ms
CFC 60

RIGHT REAR SEAT CROSSMEMBER X Velocity (kph) vs TIME (ms)
Max: 39.9 kph
Tmax: 0.0 ms
Min: -5.0 kph
Tmin: 107.1 ms
CFC 180
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)

Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

**LEFT BRAKE CALIPER X (G's) vs TIME (ms)**
- Max: 7.4 G's
- Tmax: 107.3 ms
- Min: -38.6 G's
- Tmin: 26.5 ms
- CFC 60

**LEFT BRAKE CALIPER X Velocity (kph) vs TIME (ms)**
- Max: 40.0 kph
- Tmax: 5.4 ms
- Min: -5.8 kph
- Tmin: 104.3 ms
- CFC 180

**RIGHT BRAKE CALIPER X (G's) vs TIME (ms)**
- Max: 6.9 G's
- Tmax: 106.9 ms
- Min: -37.6 G's
- Tmin: 39.1 ms
- CFC 60

**RIGHT BRAKE CALIPER X Velocity (kph) vs TIME (ms)**
- Max: 40.0 kph
- Tmax: 0.0 ms
- Min: -6.8 kph
- Tmin: 94.9 ms
- CFC 180
25 MPH FRONTAL UNBELTED
2007 FORD MUSTANG (C70207)
Test Date: 03/17/2008
Speed: 24.8 mph (39.9 km/h)

BARRIER FORCE - SUM LEFT (KN) vs TIME (ms)
Max: 2.1 KN
Tmax: 8.4 ms
Min: -164.4 KN
Tmin: 55.4 ms
CFC 60

BARRIER FORCE - SUM CENTER (KN) vs TIME (ms)
Max: 0.6 KN
Tmax: 0.0 ms
Min: -139.1 KN
Tmin: 14.1 ms
CFC 60

BARRIER FORCE - SUM RIGHT (KN) vs TIME (ms)
Max: 1.6 KN
Tmax: 5.8 ms
Min: -156.0 KN
Tmin: 52.3 ms
CFC 60

BARRIER FORCE - SUM ALL (KN) vs TIME (ms)
Max: 2.0 KN
Tmax: 0.0 ms
Min: -415.0 KN
Tmin: 53.3 ms
CFC 60
APPENDIX B

CRASH TEST PHOTOGRAPHS
<table>
<thead>
<tr>
<th>Photo No.</th>
<th>Description</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vehicle Certification Label</td>
<td>B-1</td>
</tr>
<tr>
<td>2</td>
<td>Tire Placard</td>
<td>B-2</td>
</tr>
<tr>
<td>3</td>
<td>Pre-Test Front View of Test Vehicle</td>
<td>B-3</td>
</tr>
<tr>
<td>4</td>
<td>Post-Test Front View of Test Vehicle</td>
<td>B-4</td>
</tr>
<tr>
<td>5</td>
<td>Pre-Test Left Side View of Test Vehicle</td>
<td>B-5</td>
</tr>
<tr>
<td>6</td>
<td>Post-Test Left Side View of Test Vehicle</td>
<td>B-6</td>
</tr>
<tr>
<td>7</td>
<td>Pre-Test Right Side View of Test Vehicle</td>
<td>B-7</td>
</tr>
<tr>
<td>8</td>
<td>Post-Test Right Side View of Test Vehicle</td>
<td>B-8</td>
</tr>
<tr>
<td>9</td>
<td>Pre-Test Right Front Three-Quarter View of Test Vehicle</td>
<td>B-9</td>
</tr>
<tr>
<td>10</td>
<td>Post-Test Right Front Three-Quarter View of Test Vehicle</td>
<td>B-10</td>
</tr>
<tr>
<td>11</td>
<td>Pre-Test Left Front Three-Quarter View of Test Vehicle</td>
<td>B-11</td>
</tr>
<tr>
<td>12</td>
<td>Post-Test Left Front Three-Quarter View of Test Vehicle</td>
<td>B-12</td>
</tr>
<tr>
<td>13</td>
<td>Pre-Test Right Rear Three-Quarter View of Test Vehicle</td>
<td>B-13</td>
</tr>
<tr>
<td>14</td>
<td>Post-Test Right Rear Three-Quarter View of Test Vehicle</td>
<td>B-14</td>
</tr>
<tr>
<td>15</td>
<td>Pre-Test Left Rear Three-Quarter View of Test Vehicle</td>
<td>B-15</td>
</tr>
<tr>
<td>16</td>
<td>Post-Test Left Rear Three-Quarter View of Test Vehicle</td>
<td>B-16</td>
</tr>
<tr>
<td>17</td>
<td>Pre-Test Rear View of Test Vehicle</td>
<td>B-17</td>
</tr>
<tr>
<td>18</td>
<td>Post-Test Rear View of Test Vehicle</td>
<td>B-18</td>
</tr>
<tr>
<td>19</td>
<td>Pre-Test Windshield View</td>
<td>B-19</td>
</tr>
<tr>
<td>20</td>
<td>Post-Test Windshield View</td>
<td>B-20</td>
</tr>
<tr>
<td>21</td>
<td>Pre-Test Engine Compartment View</td>
<td>B-21</td>
</tr>
<tr>
<td>22</td>
<td>Post-Test Engine Compartment View</td>
<td>B-22</td>
</tr>
<tr>
<td>23</td>
<td>Pre-Test Fuel Filler Cap View</td>
<td>B-23</td>
</tr>
<tr>
<td>24</td>
<td>Post-Test Fuel Filler Cap View</td>
<td>B-24</td>
</tr>
<tr>
<td>25</td>
<td>Pre-Test Front Underbody View</td>
<td>B-25</td>
</tr>
<tr>
<td>Photo No.</td>
<td>Description</td>
<td>Page</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>26</td>
<td>Post-Test Front Underbody View</td>
<td>B-26</td>
</tr>
<tr>
<td>27</td>
<td>Pre-Test Mid Underbody View</td>
<td>B-27</td>
</tr>
<tr>
<td>28</td>
<td>Post-Test Mid Underbody View</td>
<td>B-28</td>
</tr>
<tr>
<td>29</td>
<td>Post-Test Fuel Tank View</td>
<td>B-29</td>
</tr>
<tr>
<td>30</td>
<td>Pre-Test Rear Underbody View</td>
<td>B-30</td>
</tr>
<tr>
<td>31</td>
<td>Post-Test Rear Underbody View</td>
<td>B-31</td>
</tr>
<tr>
<td>32</td>
<td>Pre-Test Driver Dummy Front View (head position)</td>
<td>B-32</td>
</tr>
<tr>
<td>33</td>
<td>Post-Test Driver Dummy Front View (head position)</td>
<td>B-33</td>
</tr>
<tr>
<td>34</td>
<td>Pre-Test Driver Dummy Position Left Side View</td>
<td>B-34</td>
</tr>
<tr>
<td>35</td>
<td>Post-Test Driver Dummy Position Left Side View</td>
<td>B-35</td>
</tr>
<tr>
<td>36</td>
<td>Pre-Test Driver Dummy Position Left Side View (Door Open)</td>
<td>B-36</td>
</tr>
<tr>
<td>37</td>
<td>Post-Test Driver Dummy Position Left Side View (Door Open)</td>
<td>B-37</td>
</tr>
<tr>
<td>38</td>
<td>Pre-Test Driver Dummy Seat Position</td>
<td>B-38</td>
</tr>
<tr>
<td>39</td>
<td>Post-Test Driver Dummy Seat Position</td>
<td>B-39</td>
</tr>
<tr>
<td>40</td>
<td>Pre-Test Driver Dummy Feet Position</td>
<td>B-40</td>
</tr>
<tr>
<td>41</td>
<td>Post-Test Driver Dummy Feet Position</td>
<td>B-41</td>
</tr>
<tr>
<td>42</td>
<td>Pre-Test Driver Side Knee Bolster View</td>
<td>B-42</td>
</tr>
<tr>
<td>43</td>
<td>Post-Test Driver Side Knee Bolster View</td>
<td>B-43</td>
</tr>
<tr>
<td>44</td>
<td>Post-Test Driver Dummy Airbag Contact</td>
<td>B-44</td>
</tr>
<tr>
<td>45</td>
<td>Post-Test Driver Dummy Head Contact (visor)</td>
<td>B-45</td>
</tr>
<tr>
<td>46</td>
<td>Post-Test Driver Dummy Head Contact (headrest)</td>
<td>B-46</td>
</tr>
<tr>
<td>47</td>
<td>Post-Test Driver Dummy Knee Contact (left side)</td>
<td>B-47</td>
</tr>
<tr>
<td>48</td>
<td>Post-Test Driver Dummy Knee Contact (right side)</td>
<td>B-48</td>
</tr>
<tr>
<td>49</td>
<td>Pre-Test Passenger Dummy Front View (head position)</td>
<td>B-49</td>
</tr>
<tr>
<td>50</td>
<td>Post-Test Passenger Dummy Front View (head position)</td>
<td>B-50</td>
</tr>
<tr>
<td>51</td>
<td>Pre-Test Passenger Dummy Position Right Side View</td>
<td>B-51</td>
</tr>
<tr>
<td>52</td>
<td>Post-Test Passenger Dummy Position Right Side View</td>
<td>B-52</td>
</tr>
</tbody>
</table>
Photo No. 53.  Pre-Test Passenger Dummy Position Right Side View (Door Open)  B-53
Photo No. 54.  Post-Test Passenger Dummy Position Right Side View (Door Open)  B-54
Photo No. 55.  Pre-Test Passenger Dummy Seat Position  B-55
Photo No. 56.  Post-Test Passenger Dummy Seat Position  B-56
Photo No. 57.  Pre-Test Passenger Dummy Feet Position  B-57
Photo No. 58.  Post-Test Passenger Dummy Feet Position  B-58
Photo No. 59.  Pre-Test Passenger Side Knee Bolster View  B-59
Photo No. 60.  Post-Test Passenger Side Knee Bolster View  B-60
Photo No. 61.  Post-Test Passenger Dummy Head Contact View (headrest)  B-61
Photo No. 62.  Post-Test Passenger Dummy Knee Contact  B-62
Photo No. 63.  Post-Test Passenger Dummy Airbag Contact  B-63
Photo No. 64.  Rollover 90 Degrees  B-64
Photo No. 65.  Rollover 180 Degrees  B-65
Photo No. 66.  Rollover 270 Degrees  B-66
Photo No. 67.  Rollover 360 Degrees  B-67
Photo No. 68.  Temperature Plot  B-68
Photo No. 69.  Vehicle in Relation to The Load Cell Grid  B-69
**Vehicle Certification Label**

- **DATE:** 03/07
- **GAWR:** 955KG/2105LB
- **REAR GAWR:** 1039KG/2275LB
- **GVWR:** 1969KG/4340LB
- **VIN:** 1ZVFT80N475325885
- **TYPE:** Passenger Car
- **MAXIMUM LOAD:** OCCUPANTS + LUGGAGE = 326KG/720LB
- **OCCUPANTS = 4 TOTAL:** 2 FRONT, 2 REAR
- **TIRE (FR):** P215/65R16
- **(RR):** P215/65R16
- **PRESSURE (FR):** 240 kPa/35 PSI COLD
- **PRESSURE (RR):** 240 kPa/35 PSI COLD
- **TIRE TO WING:** SEE OWNER GUIDE
- **TRAILER TOWING:**
  - **EXT PNT:** G9
  - **RC:** 41
  - **PS:** 0
  - **AXLE:** TR 50
  - **SPR:** ZF1B
  - **RO134**
- **INT TR:**
  - **TP:** P2
  - **PS:** 5
  - **BG:** L
  - **BBAA:** 60A
  - **1ZVFT80N475325885**
- **CMC:** 5USA-5420472-AA

---

### TIRE SIZE

<table>
<thead>
<tr>
<th>TIRE SIZE</th>
<th>SIZE</th>
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<tbody>
<tr>
<td>FRONT</td>
<td>P215/65R16</td>
</tr>
<tr>
<td>REAR</td>
<td>P215/65R16</td>
</tr>
<tr>
<td>SPARE</td>
<td>T155/70R13</td>
</tr>
</tbody>
</table>

---

**MFD. BY FORD MOTOR CO.**

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

---

**Vehicle Certification Label**
TIRE AND LOADING INFORMATION

SEATING CAPACITY TOTAL: 4 FRONT: 2 REAR: 2

The combined weight of occupants and cargo should never exceed: 326 kg or 720 lbs.

<table>
<thead>
<tr>
<th>TIRE</th>
<th>SIZE</th>
<th>COLD TIRE PRESSURE</th>
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<tbody>
<tr>
<td>FRONT</td>
<td>P215/65R16</td>
<td>240 KPA, 35 PSI</td>
</tr>
<tr>
<td>REAR</td>
<td>P215/65R16</td>
<td>240 KPA, 35 PSI</td>
</tr>
<tr>
<td>SPARE</td>
<td>T155/70R17</td>
<td>415 KPA, 60 PSI</td>
</tr>
</tbody>
</table>

SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION

Tire Placard
Pre-Test Front View of Test Vehicle
Post-Test Front View of Test Vehicle
Pre-Test Left Side View of Test Vehicle
Pre-Test Right Side View of Test Vehicle
Post-Test Right Side View of Test Vehicle
Pre-Test Right Front Three-Quarter View of Test Vehicle
Post-Test Right Front Three-Quarter View of Test Vehicle
Pre-Test Left Front Three-Quarter View of Test Vehicle
Post-Test Left Front Three-Quarter View of Test Vehicle
Pre-Test Right Rear Three-Quarter View of Test Vehicle
Post-Test Right Rear Three-Quarter View of Test Vehicle
Pre-Test Left Rear Three-Quarter View of Test Vehicle
Post-Test Left Rear Three-Quarter View of Test Vehicle
Pre-Test Rear View of Test Vehicle
Post-Test Rear View of Test Vehicle
Post-Test Windshield View
Pre-Test Engine Compartment View
Post-Test Engine Compartment View
Post-Test Fuel Filler Cap View
Pre-Test Front Underbody View
Pre-Test Mid Underbody View
Post-Test Fuel Tank View
Pre-Test Rear Underbody View
Pre-Test Driver Dummy Front View (head position)
Post-Test Driver Dummy Front View (head position)
Pre-Test Driver Dummy Position Left Side View
Pre-Test Driver Dummy Position Left Side View (Door Open)
Post-Test Driver Dummy Position Left Side View (Door Open)
Pre-Test Driver Dummy Seat Position

C70207
25 MPH FRONTAL UNBELTED
08031701
MGA RESEARCH CORP.
2007 FORD MUSTANG
Post-Test Driver Dummy Seat Position
Pre-Test Driver Dummy Feet Position
Post-Test Driver Dummy Feet Position
Post-Test Driver Side Knee Bolster View
Post-Test Driver Dummy Head Contact (visor)
Post-Test Driver Dummy Head Contact (headrest)
Post-Test Driver Dummy Knee Contact (left side)
Post-Test Driver Dummy Knee Contact (right side)
Pre-Test Passenger Dummy Front View (head position)
Post-Test Passenger Dummy Front View (head position)
Pre-Test Passenger Dummy Position Right Side View
Post-Test Passenger Dummy Position Right Side View
Pre-Test Passenger Dummy Position Right Side View (Door Open)
Post-Test Passenger Dummy Position Right Side View (Door Open)
Pre-Test Passenger Dummy Seat Position
Post-Test Passenger Dummy Seat Position
Pre-Test Passenger Dummy Feet Position
Post-Test Passenger Dummy Feet Position
Pre-Test Passenger Side Knee Bolster View
Post-Test Passenger Side Knee Bolster View
Post-Test Passenger Dummy Head Contact View (headrest)
Post-Test Passenger Dummy Knee Contact
Post-Test Passenger Dummy Airbag Contact
Rollover 90 Degrees
Rollover 180 Degrees
Rollover 360 Degrees
Temperature Plot
Vehicle in Relation to The Load Cell Grid
APPENDIX C
INSTRUMENTATION CALIBRATION
### INSTRUMENTS FOR DRIVER DUMMY NO. 507

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Serial No.</th>
<th>Manufacturer</th>
<th>Calibration Date</th>
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</thead>
<tbody>
<tr>
<td>Head X</td>
<td>P47091</td>
<td>Endevco</td>
<td>01/24/08</td>
</tr>
<tr>
<td>Head Y</td>
<td>P47118</td>
<td>Endevco</td>
<td>01/24/08</td>
</tr>
<tr>
<td>Head Z</td>
<td>P47304</td>
<td>Endevco</td>
<td>01/24/08</td>
</tr>
<tr>
<td>Neck Load Cell</td>
<td>1748</td>
<td>Denton</td>
<td>11/08/07</td>
</tr>
<tr>
<td>Chest X</td>
<td>P47083</td>
<td>Endevco</td>
<td>01/24/08</td>
</tr>
<tr>
<td>Chest Y</td>
<td>P47085</td>
<td>Endevco</td>
<td>01/24/08</td>
</tr>
<tr>
<td>Chest Z</td>
<td>P47092</td>
<td>Endevco</td>
<td>01/24/08</td>
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<tr>
<td>Chest Displacement</td>
<td>507</td>
<td>Servo</td>
<td>02/04/08</td>
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<tr>
<td>Left Femur Load Cell</td>
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<td>GSE</td>
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### INSTRUMENTS FOR PASSENGER DUMMY NO. 510

<table>
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<th>Serial No.</th>
<th>Manufacturer</th>
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<tbody>
<tr>
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<td>P49453</td>
<td>Endevco</td>
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<tr>
<td>Head Y</td>
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<td>Endevco</td>
<td>10/17/07</td>
</tr>
<tr>
<td>Head Z</td>
<td>P49526</td>
<td>Endevco</td>
<td>01/25/08</td>
</tr>
<tr>
<td>Neck Load Cell</td>
<td>1021</td>
<td>Denton</td>
<td>12/20/07</td>
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<tr>
<td>Chest X</td>
<td>P47305</td>
<td>Endevco</td>
<td>10/17/07</td>
</tr>
<tr>
<td>Chest Y</td>
<td>P47897</td>
<td>Endevco</td>
<td>10/17/07</td>
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<td>Chest Z</td>
<td>P47898</td>
<td>Endevco</td>
<td>10/17/07</td>
</tr>
<tr>
<td>Chest Displacement</td>
<td>510</td>
<td>Servo</td>
<td>02/04/08</td>
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<tr>
<td>Left Femur Load Cell</td>
<td>9426</td>
<td>GSE</td>
<td>02/13/08</td>
</tr>
<tr>
<td>Right Femur Load Cell</td>
<td>9425</td>
<td>GSE</td>
<td>02/13/08</td>
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</table>
## VEHICLE INSTRUMENTS

<table>
<thead>
<tr>
<th>SERIAL NO.</th>
<th>MANUFACTURER</th>
<th>CALIBRATION DATE</th>
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</thead>
<tbody>
<tr>
<td>Left Rear Seat Crossmember X</td>
<td>P47974</td>
<td>Endevco</td>
</tr>
<tr>
<td>Right Rear Seat Crossmember X</td>
<td>P47967</td>
<td>Endevco</td>
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<tr>
<td>Top of Engine X</td>
<td>A008123</td>
<td>Entran</td>
</tr>
<tr>
<td>Bottom of Engine X</td>
<td>F29-X18</td>
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<tr>
<td>Left Brake Caliper X</td>
<td>P47809</td>
<td>Endevco</td>
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<tr>
<td>Right Brake Caliper X</td>
<td>P47817</td>
<td>Endevco</td>
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<td>Instrument Panel X</td>
<td>F04-R22</td>
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<tr>
<td>Trunk Z</td>
<td>P47972</td>
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</table>

C-2