SAFETY COMPLIANCE TESTING FOR
FMVSS NO. 138
TIRE PRESSURE MONITORING SYSTEMS

HONDA MOTOR COMPANY
2010 HONDA ODYSSEY
FOUR-DOOR MPV
NHTSA NO. CA5305

U.S. DOT SAN ANGELO TEST FACILITY
131 COMANCHE TRAIL, BUILDING 3527
GOODFELLOW AFB, TEXAS 76908

JUNE 30, 2010
FINAL REPORT

PREPARED FOR
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
NVS-220
OFFICE OF VEHICLE SAFETY COMPLIANCE
1200 NEW JERSEY AVENUE, SE
WASHINGTON, D.C. 20590
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Prepared By: Doris Beebe

Approved By: Emmett H. Zark

Accepted By: John Aumann

Acceptance Date: 6/30/10
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<tr>
<td>Jack Stewart, Senior Systems Analyst</td>
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</tr>
<tr>
<td>Todd P. Groghan, Safety Compliance Engineer</td>
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<tr>
<td>Kenneth H. Yates, Safety Compliance Engineer</td>
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<td>Office of Vehicle Safety Compliance, NVS 220</td>
</tr>
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<th>15. Supplementary Notes</th>
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<td>Compliance tests were conducted on the subject 2010 Honda Odyssey four-door MPV in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure Number TP-138-03 for the determination of FMVSS 138 compliance. Test failures identified were as follows: None</td>
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<td>Technical Information Services Division</td>
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<td>NPO-411, Room E12-100</td>
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<tr>
<td>1200 New Jersey Avenue, S.E.</td>
</tr>
<tr>
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</tr>
<tr>
<td>Email:  <a href="mailto:tis@dot.gov">tis@dot.gov</a></td>
</tr>
<tr>
<td>FAX:   202-493-2833</td>
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Form DOT F 1700.7 (8-72)
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>SECTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Introduction</td>
<td>1</td>
</tr>
<tr>
<td>2 Test Procedure and Summary of Results</td>
<td>2</td>
</tr>
<tr>
<td>3 Test Data</td>
<td>4</td>
</tr>
<tr>
<td>Test Data Summary</td>
<td>5</td>
</tr>
<tr>
<td>Vehicle Weigh-in for LLVW</td>
<td>12</td>
</tr>
<tr>
<td>Scenario A – Left Rear Tire Deflation at LLVW</td>
<td>13</td>
</tr>
<tr>
<td>Scenario B – Left Rear, Right Rear Tire Deflation at LLVW</td>
<td>16</td>
</tr>
<tr>
<td>Scenario C – Left Front, Left Rear, Right Rear, and Right Front Tire Deflation at LLVW</td>
<td>19</td>
</tr>
<tr>
<td>Vehicle Weigh-in for UVW + VCW</td>
<td>23</td>
</tr>
<tr>
<td>Scenario D – Left Front Tire Deflation at UVW + VCW</td>
<td>24</td>
</tr>
<tr>
<td>Scenario E – Left Front, Right Rear Tire Deflation at UVW + VCW</td>
<td>27</td>
</tr>
<tr>
<td>Scenario F – Left Front, Left Rear, and Right Rear Tire Deflation at UVW + VCW</td>
<td>30</td>
</tr>
<tr>
<td>Scenario G – Malfunction Detection Test - Spare Installed on Right Front</td>
<td>33</td>
</tr>
<tr>
<td>Scenario H – Malfunction Detection Test - TPMS Fuse Removed</td>
<td>35</td>
</tr>
<tr>
<td>TPMS Written Instructions</td>
<td>37</td>
</tr>
<tr>
<td>4 Test Equipment List and Calibration Information</td>
<td>40</td>
</tr>
<tr>
<td>5 Photographs</td>
<td>41</td>
</tr>
<tr>
<td>Figure</td>
<td></td>
</tr>
<tr>
<td>5.1 ¾ Front View from Left Side of Vehicle</td>
<td></td>
</tr>
<tr>
<td>5.2 Vehicle Certification Label</td>
<td></td>
</tr>
<tr>
<td>5.3 Vehicle Placard</td>
<td></td>
</tr>
<tr>
<td>5.4 Tire Showing Brand</td>
<td></td>
</tr>
<tr>
<td>5.5 Tire Showing Model</td>
<td></td>
</tr>
<tr>
<td>5.6 Tire Showing Size and Load Index / Speed Rating</td>
<td></td>
</tr>
<tr>
<td>5.7 Tire Showing DOT Serial Number</td>
<td></td>
</tr>
<tr>
<td>5.8 Tire Showing Max Load Rating and Max Cold Inflation Pressure</td>
<td></td>
</tr>
<tr>
<td>5.9 Tire Showing Sidewall / Tread Construction</td>
<td></td>
</tr>
<tr>
<td>5.10 Rim Showing TPMS Sensor and Rim Contour for Full Width of Cross Section</td>
<td></td>
</tr>
<tr>
<td>5.11 Display Showing Low Tire Pressure Warning Telltale</td>
<td></td>
</tr>
<tr>
<td>5.12 Display Showing Dedicated TPMS Malfunction Warning Telltale</td>
<td></td>
</tr>
<tr>
<td>5.13 Test Instrumentation Installed in Vehicle</td>
<td></td>
</tr>
<tr>
<td>5.14 Vehicle Cargo Area Ballast for LLVW Load</td>
<td></td>
</tr>
<tr>
<td>5.15 Vehicle Second Row Ballast for UVW + VCW Load</td>
<td></td>
</tr>
<tr>
<td>5.16 Vehicle Third Row Ballast for UVW + VCW Load</td>
<td></td>
</tr>
<tr>
<td>5.17 Vehicle Cargo Area Ballast for UVW + VCW Load</td>
<td></td>
</tr>
<tr>
<td>5.18 Vehicle on Weight Scales</td>
<td></td>
</tr>
<tr>
<td>5.19 Spare Installed on Right Front</td>
<td></td>
</tr>
<tr>
<td>5.20 Fuse Chart – TPMS Fuse Removed</td>
<td></td>
</tr>
<tr>
<td>6 Test Plots</td>
<td>62</td>
</tr>
<tr>
<td>7 Owner’s Manual Pages</td>
<td>70</td>
</tr>
</tbody>
</table>
SECTION 1

INTRODUCTION

1.1 PURPOSE OF COMPLIANCE TEST

A 2010 Honda Odyssey four-door MPV was tested to determine if the vehicle was in compliance with the requirements of FMVSS 138. All tests were conducted in accordance with NHTSA/Office of Vehicle Safety Compliance (OVSC) Laboratory Test Procedure TP-138-03 dated July 12, 2007.

1.2 TEST VEHICLE

The test vehicle was a 2010 Honda Odyssey four-door MPV. Nomenclatures applicable to the test vehicle are:

A. Vehicle Identification Number: 5FNRL3H21AB039382

B. NHTSA Number: CA5305

C. Manufacturer: Honda Motor Company

D. Manufacture Date: 12/2009

1.3 TEST DATE

The test vehicle was tested during the time period May 7 through May 13, 2010.
SECTION 2

TEST PROCEDURE AND SUMMARY OF RESULTS

2.1 TEST PROCEDURE

Prior to test, the test vehicle was inspected for completeness, systems operability, and appropriate fuel and liquid levels, i.e. oil and coolant. The vehicle was then photographically documented as required by the NHTSA/OVSC Test Procedure. Tire sidewall and vehicle labeling information were recorded. The owner’s manual was reviewed, and pertinent tire and TPMS information were noted. Telltale’s symbol, color, location, and lamp function were checked.

Subsequent events included weighing the vehicle to establish the Unloaded Vehicle Weight (UVW) and the distribution of weight on the front and rear axles and each wheel position. The vehicle was loaded to its Lightly Loaded Vehicle Weight (LLVW) for three tire deflation scenarios. This LLVW included the weights of driver, one passenger, ballast, and test equipment. The vehicle was loaded to its Unloaded Vehicle Weight plus Vehicle Capacity Weight (VCW) for three additional tire deflation scenarios. The VCW included the weights of driver, one passenger, test equipment, ballast in the rear seat, and ballast in the rear cargo area. The vehicle is required to be loaded to its maximum capacity without exceeding either the Vehicle Capacity Weight or Gross Vehicle Weight Rating (GVWR). For determination of the telltale warning activation pressure, the recommended cold inflation pressure was identified from the vehicle placard.

The vehicle was instrumented with a Racelogic VBOX III 100 Hz GPS Data Logger and brake pedal trigger. The VBOX uses GPS to measure vehicle speed, time, and distance. Test data were recorded to a compact flash card. During the test, a stopwatch was used to determine the approximate “cumulative driving time” during each test phase. Cumulative driving time does not include time during the brake application or when the vehicle speed was below 50 km/h or above 100 km/h. Upon completion of a tire deflation scenario, graphs were generated by VBOX software showing vehicle speed versus time during the test procedures. The graphs furnish a second by second analysis of each calibration and low inflation pressure detection phase (as appropriate). The cumulative driving time was calculated by post-processing the VBOX graph data, and is reported in Section 3 (Test Data) as ‘Total Driving Time’.

The tire deflation test scenario consisted of four phases:

1. Calibration phase: Tires were set at vehicle placard cold inflation pressure and the vehicle was driven for at least twenty minutes of cumulative driving time between 50 and 100 km/h.
2. Detection phase: Immediately after calibration phase, the selected tire(s) were deflated to seven kPa (one psi) below the Telltale Warning Activation Pressure. After one minute, the inflation pressure(s) of only deflated tire(s) were rechecked and adjusted if necessary. The vehicle was started and driven to ensure that the low inflation pressure telltale illuminated.

3. Cool down phase: Vehicle was parked in the San Angelo Test Facility (SATF) open bay shielded from direct sunlight. Tires were allowed to cool down for a minimum of one hour. After cool down, the vehicle was started and the low tire pressure telltale was checked for re-illumination.

4. Extinguishment phase: Tires were adjusted to vehicle placard cold inflation pressure. The vehicle was started and driven to ensure that the low inflation pressure telltale extinguished.

Two malfunction scenarios were performed on the Honda Odyssey. The first scenario was performed with the vehicle loaded to its LLVW. The malfunction was simulated by placing the compact spare tire, with no TPMS sensor, on the right front wheel position. The second scenario was performed by removing a TPMS fuse.

2.2 SUMMARY OF RESULTS

Three tire deflation scenarios were performed on the test vehicle at LLVW:

A. Left rear
B. Left rear and right rear
C. Left front, left rear, right rear, and right front

Three tire deflation scenarios were performed on the test vehicle at UVW + VCW:

D. Left front
E. Left front and right rear
F. Left front, left rear, and right rear

The data indicate compliance of the test vehicle’s tire pressure monitoring system for the six tire deflation scenarios tested.

One malfunction detection scenario was performed on the test vehicle at LLVW:

G. Spare tire without TPMS sensor was applied to right front wheel position.

One malfunction detection scenario was performed on the test vehicle at UVW + VCW:

H. TPMS fuse was removed.

In both scenarios, the vehicle’s dedicated malfunction telltale properly operated per the standard’s requirements.
SECTION 3
TEST DATA
## FMVSS No. 138 – TEST DATA SUMMARY

**TEST DATES:** May 7 – May 13, 2010  
**LAB:** U.S. DOT San Angelo Test Facility  
**VIN:** 5FNRL3H21AB039382  
**VEHICLE NHTSA NUMBER:** CA5305  
**CERTIFICATION LABEL BUILD DATE:** 12/2009

### REQUIREMENTS

<table>
<thead>
<tr>
<th>Requirement Description</th>
<th>PASS/FAIL</th>
</tr>
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| **LOW TIRE PRESSURE WARNING TELLTALE**  
S138: S4.3.1 (a), (b); S4.3.3 (a), (b) |  
Mounting | PASS |
| | Symbol and color | PASS |
| | Check of lamp function | PASS |
| **MALFUNCTION TELLTALE**  
S138: S4.4 (b) or (c) |  
Mounting | PASS |
| | Symbol and color | PASS |
| | Check of lamp function | PASS |
| **LOW TIRE PRESSURE WARNING - OPERATIONAL PERFORMANCE**  
S138: S4.2, S4.3.1 (c), S4.3.2 |  
Telltale illumination | PASS |
| **MALFUNCTION INDICATOR – OPERATIONAL PERFORMANCE**  
S138: S4.4 (a) |  
Telltale illumination | PASS |
| **TPMS WRITTEN INSTRUCTIONS**  
S138: S4.5 |  
Image of telltales | PASS |
| | Verbatim statements | PASS |

### REMARKS:
None
TEST DATE: May 7, 2010
LAB: U.S. DOT San Angelo Test Facility

VEHICLE NHTSA NUMBER: CA5305
VIN: 5FNRL3H21AB039382

CERTIFICATION LABEL BUILD DATE: 12/2009
ENGINE: 3.5 liter, V6

MY/MAKE/MODEL/BODY STYLE: 2010 Honda Odyssey four-door MPV

TIRE CONDITIONING:
( X ) Tires used more than 100 km. Actual odometer reading: 132 km (82 mi)

VEHICLE ALIGNMENT AND WHEEL BALANCING:
Alignment checked: ( ) Front ( ) Rear ( X ) COTR waived
Wheels balanced: ( ) Front ( ) Rear ( X ) COTR waived

TPMS IDENTIFICATION:
TPMS MAKE/MODEL: Sensor: TRW; receiver: TRW
Source: Manufacturer supplied information

TPMS TYPE: ( X ) Direct ( ) Indirect ( ) Other

Does TPMS require execution of a learning/calibration driving phase? ( )YES ( X )NO
Source: Manufacturer supplied information

Does TPMS have a manual reset control? ( )YES ( X )NO

TPMS MALFUNCTION INDICATOR TYPE:
( ) None ( X ) Dedicated Telltale ( ) Combination low tire pressure/malfunction telltale
**DATA SHEET 1 (Sheet 2 of 3)**

**TEST PREPARATION INFORMATION**

**DESIGNATED TIRE SIZE(S) FROM VEHICLE LABELING AND OWNER’S MANUAL:**

<table>
<thead>
<tr>
<th>Axle</th>
<th>Tire Size</th>
<th>Recommended Cold Inflation Pressure</th>
<th>Source</th>
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<tr>
<td>Front</td>
<td>235/65R16</td>
<td>230 kPa (33 psi)</td>
<td>Vehicle placard</td>
</tr>
<tr>
<td>Rear</td>
<td>235/65R16</td>
<td>240 kPa (35 psi)</td>
<td>Vehicle placard</td>
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**INSTALLED TIRE DATA**  
Diagram - MPV Tire Labeling

Front and Rear Axles

- **Tire Size and Load Index / Speed Rating:** 235/65R16 103T
- **Manufacturer/Tire Name:** Michelin Energy LX4
- **Sidewall Max Load Rating:** 875 kg (1,929 lbs)
- **Max Inflation Pressure:** 300 kPa (44 psi)
- **Sidewall Construction (number of plies and ply material):** 2 polyester
- **Tread Construction (number of plies and ply material):** 2 polyester, 1 polyamide, 2 steel

Do all installed tires have the same sidewall information?  (X) YES  ( ) NO

Are all installed tires the same as designated by the vehicle manufacturer on the vehicle placard?  (X) YES  ( ) NO
### Worksheet for Determining FMVSS No. 138 Telltale Warning Activation Pressure for Tires Installed on Vehicle

<table>
<thead>
<tr>
<th>Part</th>
<th>Front Axle</th>
<th>Rear Axle</th>
</tr>
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<tbody>
<tr>
<td><strong>(A)</strong> Recommended Inflation Pressure x .75</td>
<td>230 kPa x .75 = 172.5 kPa</td>
<td>240 kPa x .75 = 180.0 kPa</td>
</tr>
<tr>
<td><strong>(B)</strong> Information from FMVSS 138 Table 1 below, Tire types are:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation pressure</td>
<td>( X ) P-metric-Standard load</td>
<td>( X ) P-metric-Standard load</td>
</tr>
<tr>
<td>Minimum activation pressures from Table 1</td>
<td>( ) P-metric-Extra Load Load Range ( ) C, ( ) D, or ( ) E</td>
<td>( ) P-metric-Extra Load Load Range ( ) C, ( ) D, or ( ) E</td>
</tr>
<tr>
<td></td>
<td>(X) Maximum or ( ) Rated 300 kPa (44 psi)</td>
<td>(X) Maximum or ( ) Rated 300 kPa (44 psi)</td>
</tr>
<tr>
<td></td>
<td><strong>140</strong> kPa (20 psi)</td>
<td><strong>140</strong> kPa (20 psi)</td>
</tr>
<tr>
<td><strong>(C)</strong> Telltale Warning Activation Pressure is the higher of Part (A) or (B)</td>
<td><strong>172.5</strong> kPa (25 psi)</td>
<td><strong>180</strong> kPa (26 psi)</td>
</tr>
<tr>
<td><strong>(D)</strong> Pressure at which to deflate tire(s) = (C) – 7 kPa</td>
<td><strong>165.5</strong> kPa (24 psi)</td>
<td><strong>173</strong> kPa (25 psi)</td>
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**FMVSS 138 Table 1 - Low Tire Pressure Warning Telltale - Minimum Activation Pressure**

<table>
<thead>
<tr>
<th>Tire Type</th>
<th>Maximum or Rated Inflation Pressure</th>
<th>Minimum Activation Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(kPa)</td>
<td>(psi)</td>
</tr>
<tr>
<td>P-metric -- Standard Load</td>
<td>240, 300, or 350</td>
<td>35, 44, or 51</td>
</tr>
<tr>
<td>P-metric - Extra Load</td>
<td>280 or 340</td>
<td>41 or 49</td>
</tr>
<tr>
<td>Load Range C</td>
<td>350</td>
<td>51</td>
</tr>
<tr>
<td>Load Range D</td>
<td>450</td>
<td>65</td>
</tr>
<tr>
<td>Load Range E</td>
<td>550</td>
<td>80</td>
</tr>
</tbody>
</table>

**REMARKS:** None

**RECORDED BY:** Todd P. Groghan  
**DATE:** May 7, 2010

**APPROVED BY:** Kenneth H. Yates
TEST DATE: May 7, 2010  
LAB: U.S. DOT San Angelo Test Facility

VEHICLE NHTSA NUMBER: CA5305

TPMS Low Tire Pressure Warning Telltale

Tell tale is mounted inside the occupant compartment in front of and in clear view of the driver?  
( X )YES  ( )NO (fail)

TPMS Low Tire Pressure Warning Telltale Location:  
Between speedometer and fuel gauge in instrument cluster

Identify Telltale Symbol Used (check box above figure).

Note any words or additional symbols used: None

Tell tale is part of a reconfigurable display?  
( )YES  ( X )NO

TPMS Malfunction Telltale

( ) None  ( X ) Dedicated stand-alone  ( ) Combined with low tire pressure telltale

TPMS Dedicated Malfunction Telltale Location:  
Between speedometer and fuel gauge in instrument cluster

Tell tale is mounted inside the occupant compartment in front of and in clear view of the driver?  
( X )YES  ( )NO (fail)

Malfunction telltale is part of a reconfigurable display?  
( )YES  ( X )NO

Identify Dedicated Telltale Symbol Used:  
( X ) “TPMS”  ( ) OTHER (fail)

Note any words or additional symbols used: None
LOW TIRE PRESSURE WARNING AND MALFUNCTION TELLTALE

Check Telltale Lamp Functions:

LOW TIRE PRESSURE WARNING TELLTALE

Ignition locking system position when telltale illuminates:

☐ OFF/LOCK  ☐ Between OFF/LOCK and ON/RUN

☒ ON/RUN  ☐ Between ON/RUN and START

Is the telltale yellow in color?  ( X )YES  ( )NO (fail)

Time telltale remains illuminated __3__ seconds.

DEDICATED MALFUNCTION TELLTALE

Ignition locking system position when telltale illuminates:

☐ OFF/LOCK  ☐ Between OFF/LOCK and ON/RUN

☒ ON/RUN  ☐ Between ON/RUN and START

Is the telltale yellow in color?  ( X )YES  ( )NO (fail)

Time telltale remains illuminated __3__ seconds.

Starter Interlocks:

Does vehicle have any starter, transmission or other interlocks that affect operation of the telltale lamp check function?  ( )YES  ( X )NO

Low Tire Pressure Warning and Malfunction Telltales (PASS/FAIL)  __PASS__

REMARKS:  None

RECORDED BY:  Todd P. Groghan  DATE:  ____May 7, 2010____

APPROVED BY:  Kenneth H. Yates
DATA SHEET 3 (Sheet 1 of 22)
TPMS OPERATIONAL PERFORMANCE

TEST DATE: May 7, 2010  LAB: U.S. DOT San Angello Test Facility

VEHICLE NHTSA NUMBER: CA5305

Time: Start: 7:15 am  End: 8:55 am

Ambient Temperature: Start: 22.6°C (72.7°F)  End: 22.8°C (73.0°F)

Trip Odometer Reading: Start: 133.6 km (83 mi)

Fuel Level: Start: Full

Weather Conditions: Sunny, light breeze

Time vehicle remained with engine off and tires shielded from direct sunlight (1 hour minimum): 1 hour

PRE-TEST TIRE INFLATION PRESSURES AND TIRE/SURFACE TEMPERATURES:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test cold measurements after ambient soak: Inflation Pressure</td>
<td>230.0 kPa (33.4 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>230.0 kPa (33.4 psi)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>23.2°C (73.8°F)</td>
<td>22.8°C (73.0°F)</td>
<td>22.6°C (72.7°F)</td>
<td>23.2°C (73.8°F)</td>
</tr>
</tbody>
</table>
VEHICLE WEIGHT:

Vehicle Ratings from Certification Label:

- GVWR: 2,695 kg (5,941 lbs)
- GAWR (front): 1,320 kg (2,910 lbs)
- GAWR (rear): 1,450 kg (3,197 lbs)

Vehicle Capacity Weight:

Vehicle Capacity Weight: 612 kg (1,349 lbs)

Measured Unloaded Vehicle Weight:

- LF 562 kg (1,240 lbs)
- LR 444 kg (980 lbs)
- RF 547 kg (1,205 lbs)
- RR 426 kg (939 lbs)
- Front Axle 1,109 kg (2,445 lbs)
- Rear Axle 870 kg (1,919 lbs)

Total Vehicle 1,979 kg (4,364 lbs)

Measured Test Weight: (X) LLVW (+50, -0 kg) ( ) UVW + VCW ( ) GVWR (+0, -50 kg)

- LF 617 kg (1,361 lbs)
- LR 483 kg (1,064 lbs)
- RF 596 kg (1,314 lbs)
- RR 463 kg (1,021 lbs)
- Front Axle 1,213 kg (2,675 lbs) (≤ GAWR)
- Rear Axle 946 kg (2,085 lbs) (≤ GAWR)

Total Vehicle 2,159 kg (4,760 lbs) (not greater than GVWR)

Note: For scenarios A through C, this Total Vehicle Weight measures the vehicle loaded to Lightly Loaded Vehicle Weight (LLVW), 180 kg (396 lbs) of driver, passenger, ballast, and test equipment.

RECORDED BY: Todd P. Groghan DATE: May 7, 2010

APPROVED BY: Kenneth H. Yates
DATA SHEET 3 (Sheet 3 of 22)
TPMS OPERATIONAL PERFORMANCE

SCENARIO A – Left Rear Tire Deflation at LLVW

TEST DATE: May 7, 2010 LAB: U.S. DOT San Angelo Test Facility

VEHICLE NHTSA NUMBER: CA5305

Note: See Data Sheet 3 (Sheet 2 of 22) for Test Weight.

TIRE INFLATION PRESSURES AND TIRE/SURFACE TEMPERATURES BEFORE CALIBRATION PHASE:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After loading vehicle to LLVW, positioning vehicle at selected test start point, and vehicle cool down period:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient Temperature: 23.4°C (74.1°F)</td>
<td>Vehicle cool down period: overnight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>230.0 kPa (33.4 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>230.0 kPa (33.4 psi)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>23.6°C (74.5°F)</td>
<td>23.6°C (74.5°F)</td>
<td>23.8°C (74.8°F)</td>
<td>23.6°C (74.5°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>23.6°C (74.5°F)</td>
<td>23.6°C (74.5°F)</td>
<td>23.8°C (74.8°F)</td>
<td>23.6°C (74.5°F)</td>
</tr>
</tbody>
</table>

SYSTEM CALIBRATION/LEARNING PHASE:

Time of Data Acquisition: Start: 14:15:02 UTC End: 14:40:42 UTC

Trip Odometer Reading: Start: 134.2 km (83.4 mi) End: 166.1 km (103.2 mi)

Ambient Temperature: Start: 23.5°C (74.3°F) End: 25.5°C (77.9°F)

Roadway Temperature: Start: 27.6°C (81.7°F) End: 30.8°C (87.4°F)

Driving in first direction:

Goodfellow Air Force Base (GAFB) north gate Direction: see chart, page 63

10:13 minutes (stopwatch time) 15.8 km (9.8 mi) distance

Driving in opposite direction:

Starting point: US 87 crossover overpass Direction: see chart, page 63

10:22 minutes (stopwatch time) 16.1 km (10.0 mi) distance

Max speed: 98.9 km/h (61.5 mph)

Total Driving Time: 20:37 minutes (VBox time)
DATA SHEET 3 (Sheet 4 of 22)
TPMS OPERATIONAL PERFORMANCE
SCENARIO A – Left Rear Tire Deflation at LLVW

TIRE INFLATION PRESSURES AND TEMPERATURES AFTER CALIBRATION PHASE:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediately, after vehicle is stopped,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>engine off:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>254.2 kPa (36.9 psi)</td>
<td>260.2 kPa (37.7 psi)</td>
<td>260.7 kPa (37.8 psi)</td>
<td>254.5 kPa (36.9 psi)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>42.8°C (109.0°F)</td>
<td>37.8°C (100.0°F)</td>
<td>35.6°C (96.1°F)</td>
<td>39.4°C (102.9°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>24.2°C (75.6°F)</td>
<td>24.6°C (76.3°F)</td>
<td>24.4°C (75.9°F)</td>
<td>23.8°C (74.8°F)</td>
</tr>
</tbody>
</table>

SYSTEM DETECTION PHASE:

LOCATION AND PRESSURE(S) OF DEFLATED TIRE(S):

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicate Location of Tire(s) Deflated:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( )LF ( X )LR ( )RR ( )RF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>173.0 kPa (25.1 psi)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TELLTALE ILLUMINATION:

Starting point:  San Angelo Test Facility shop

Illumination at 1:32 minutes (stopwatch time – non-cumulative)

0.2 km (0.1 mi) distance

Driving above 50 km/h was not necessary.

TEST RESULTS

TELLTALE ILLUMINATES WITHIN 20 MINUTES:  ( X )YES  ( )NO (fail)

After 5 minutes with the ignition locking system in the “Off” or “Lock” position, does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position?  ( X )YES  ( )NO (fail)

Deactivate the ignition locking system and then re-start the vehicle engine. Does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position? ( X )YES  ( )NO (fail)
DATA SHEET 3 (Sheet 5 of 22)  
TPMS OPERATIONAL PERFORMANCE  
SCENARIO A – Left Rear Tire Deflation at LLVW

TIRE INFLATION PRESSURES AND TEMPERATURES AFTER TELTTALE ILLUMINATION:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After vehicle cool down period:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient Temperature:</td>
<td>26.5°C (79.7°F)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle cool down period:</td>
<td>61 minutes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>240.5 kPa (34.9 psi)</td>
<td>165.1 kPa (23.9 psi)</td>
<td>247.3 kPa (35.9 psi)</td>
<td>241.1 kPa (35.0 psi)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>33.2°C (91.8°F)</td>
<td>28.8°C (83.8°F)</td>
<td>28.6°C (83.5°F)</td>
<td>32.8°C (91.0°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>24.8°C (76.6°F)</td>
<td>24.6°C (76.3°F)</td>
<td>24.8°C (76.6°F)</td>
<td>24.6°C (76.3°F)</td>
</tr>
</tbody>
</table>

After the cool down period of a minimum of one hour, does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position?

( X )YES     (   )NO (fail)

TELLTALE EXTINGUISHMENT:

RE-ADJUSTED TIRE INFLATION PRESSURES:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After illumination verification:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-adjusted Inflation Pressure:</td>
<td>230.0 kPa (33.4 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>230.0 kPa (33.4 psi)</td>
</tr>
</tbody>
</table>

Is it necessary to drive the vehicle to extinguish the telltale?    ( X )YES     (   )NO

Starting point:     San Angelo Test Facility shop

1:41 minutes (stopwatch time – non-cumulative) 0.3 km (0.2 mi) distance

TEST RESULTS

TPMS Performance Test Results (PASS/FAIL)  PASS
Left rear tire was deflated at LLVW.

REMARKS:   None

RECORDED BY:  Todd P. Groghan    DATE:    May 7, 2010
APPROVED BY:  Kenneth H. Yates
DATA SHEET 3 (Sheet 6 of 22)
TPMS OPERATIONAL PERFORMANCE
SCENARIO B – Left Rear, Right Rear Tire Deflation at LLVW

TEST DATE: May 10, 2010 LAB: U.S. DOT San Angelo Test Facility

VEHICLE NHTSA NUMBER: CA5305

Note: See Data Sheet 3 (Sheet 2 of 22) for Test Weight.

TIRE INFLATION PRESSURES AND TIRE/SURFACE TEMPERATURES
BEFORE CALIBRATION PHASE:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After loading vehicle to LLVW, positioning vehicle at selected test start point, and vehicle cool down period:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient Temperature: 22.4°C (72.3°F)</td>
<td>Vehicle cool down period: overnight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>230.0 kPa (33.4 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>230.0 kPa (33.4 psi)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>22.8°C (73.0°F)</td>
<td>23.2°C (73.8°F)</td>
<td>23.0°C (73.4°F)</td>
<td>22.8°C (73.0°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>22.8°C (73.0°F)</td>
<td>22.8°C (73.0°F)</td>
<td>22.6°C (72.7°F)</td>
<td>22.6°C (72.7°F)</td>
</tr>
</tbody>
</table>

SYSTEM CALIBRATION/LEARNING PHASE:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Trip Odometer Reading:</td>
<td>Start: 169.3 km (105.2 mi)</td>
<td>End: 201.2 km (125.0 mi)</td>
</tr>
<tr>
<td>Ambient Temperature:</td>
<td>Start: 22.4°C (72.3°F)</td>
<td>End: 23.3°C (73.9°F)</td>
</tr>
<tr>
<td>Roadway Temperature:</td>
<td>Start: 23.6°C (74.5°F)</td>
<td>End: 25.2°C (77.4°F)</td>
</tr>
</tbody>
</table>

Driving in first direction:

Starting point: GAFB north gate
Direction: see chart, page 64
10:20 minutes (stopwatch time) 15.8 km (9.8 mi) distance

Driving in opposite direction:

Starting point: US 87 crossover overpass
Direction: see chart, page 64
10:15 minutes (stopwatch time) 16.1 km (10.0 mi) distance

Max speed: 98.6 km/h (61.3 mph)
Total Driving Time: 20:36 minutes (VBox time)
DATA SHEET 3 (Sheet 7 of 22)
TPMS OPERATIONAL PERFORMANCE
SCENARIO B – Left Rear, Right Rear Tire Deflation at LLVW

TIRE INFLATION PRESSURES AND TEMPERATURES AFTER CALIBRATION PHASE:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediately, after vehicle is stopped, engine off:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>251.8 kPa (36.5 psi)</td>
<td>256.7 kPa (37.2 psi)</td>
<td>260.4 kPa (37.8 psi)</td>
<td>252.0 kPa (36.5 psi)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>38.8°C (101.8°F)</td>
<td>33.8°C (92.8°F)</td>
<td>34.4°C (93.9°F)</td>
<td>36.4°C (97.5°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>22.6°C (72.7°F)</td>
<td>23.0°C (73.4°F)</td>
<td>22.8°C (73.0°F)</td>
<td>22.6°C (72.7°F)</td>
</tr>
</tbody>
</table>

SYSTEM DETECTION PHASE:

LOCATION AND PRESSURE(S) OF DEFLATED TIRE(S):

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicate Location of Tire(s) Deflated:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( )LF ( X )LR ( X )RR ( )RF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>173.0 kPa (25.1 psi)</td>
<td>173.0 kPa (25.1 psi)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TELLTALE ILLUMINATION:

Starting point: San Angelo Test Facility shop

Illumination at 2:17 minutes (stopwatch time – non-cumulative)

0.3 km (0.2 mi) distance

Driving above 50 km/h was not necessary.

TEST RESULTS

TELLTALE ILLUMINATES WITHIN 20 MINUTES: ( X )YES ( )NO (fail)

After 5 minutes with the ignition locking system in the “Off” or “Lock” position, does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position? ( X )YES ( )NO (fail)

Deactivate the ignition locking system and then re-start the vehicle engine. Does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position? ( X )YES ( )NO (fail)
TPMS OPERATIONAL PERFORMANCE

SCENARIO B – Left Rear, Right Rear Tire Deflation at LLVW

TIRE INFLATION Pressures AND TEMPERATURES AFTER TELLTALE ILLUMINATION:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After vehicle cool down period:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient Temperature: <em>24.7°C (76.5°F)</em></td>
<td>Vehicle cool down period: <em>62</em> minutes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>237.7 kPa (34.5 psi)</td>
<td>165.2 kPa (24.0 psi)</td>
<td>164.7 kPa (23.9 psi)</td>
<td>238.4 kPa (34.6 psi)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>28.6°C (83.5°F)</td>
<td>25.4°C (77.7°F)</td>
<td>26.8°C (80.2°F)</td>
<td>29.6°C (85.3°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>28.6°C (83.5°F)</td>
<td>23.2°C (73.8°F)</td>
<td>23.6°C (74.5°F)</td>
<td>23.2°C (73.8°F)</td>
</tr>
</tbody>
</table>

After the cool down period of a minimum of one hour, does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the "On" or "Run" position?  
(X) Yes  ( ) No (fail)

TELLTALE EXTINGUISHMENT:
RE-ADJUSTED TIRE INFLATION Pressures:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After illumination verification:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-adjusted Inflation Pressure:</td>
<td>230.0 kPa (33.4 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>230.0 kPa (33.4 psi)</td>
</tr>
</tbody>
</table>

Is it necessary to drive the vehicle to extinguish the telltale?  
(X) Yes  ( ) No

Starting point: San Angelo Test Facility  
0:55 minutes (stopwatch time – non-cumulative)  
0.2 km (0.1 mi) distance

TEST RESULTS

TPMS Performance Test Results (PASS/FAIL)  
PASS
Left rear and right rear tires were deflated at LLVW.

REMARKS: None

RECORDED BY: Todd P. Groghan  
DATE: May 10, 2010
APPROVED BY: Kenneth H. Yates
DATA SHEET 3 (Sheet 9 of 22)
TPMS OPERATIONAL PERFORMANCE

SCENARIO C – Left Front, Left Rear, Right Rear, and Right Front Tire Deflation at LLVW

TEST DATE: May 11, 2010 LAB: U.S. DOT San Angelo Test Facility

VEHICLE NHTSA NUMBER: CA5305

Note: See Data Sheet 3 (Sheet 2 of 22) for Test Weight.

TIRE INFLATION PRESSURES AND TIRE/SURFACE TEMPERATURES BEFORE CALIBRATION PHASE:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After loading vehicle to LLVW, positioning vehicle at selected test start point, and vehicle cool down period:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient Temperature: 23.7°C (74.7°F)</td>
<td>Vehicle cool down period: overnight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>230.0 kPa (33.4 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>230.0 kPa (33.4 psi)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>24.4°C (75.9°F)</td>
<td>24.4°C (75.9°F)</td>
<td>24.4°C (75.9°F)</td>
<td>24.4°C (75.9°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>24.4°C (75.9°F)</td>
<td>24.4°C (75.9°F)</td>
<td>24.6°C (76.3°F)</td>
<td>24.2°C (75.6°F)</td>
</tr>
</tbody>
</table>

SYSTEM CALIBRATION/LEARNING PHASE:

Time of Data Acquisition: Start: 14:41:34 UTC End: 15:06:58 UTC
Trip Odometer Reading: Start: 284.4 km (176.7 mi) End: 316.2 km (196.5 mi)
Ambient Temperature: Start: 23.7°C (74.7°F) End: 23.7°C (74.7°F)
Roadway Temperature: Start: 27.4°C (81.3°F) End: 29.4°C (84.9°F)

Driving in first direction:
Starting point: GAFB north gate Direction: see chart, page 65
10:13 minutes (stopwatch time) 15.8 km (9.8 mi) distance

Driving in opposite direction:
Starting point: US 87 crossover overpass Direction: see chart, page 65
10:27 minutes (stopwatch time) 16.1 km (10.0 mi) distance

Max speed: 97.8 km/h (60.8 mph)
Total Driving Time: 20:41 minutes (VBox time)
DATA SHEET 3 (Sheet 10 of 22)
TPMS OPERATIONAL PERFORMANCE
SCENARIO C – Left Front, Left Rear, Right Rear, and Right Front Tire Deflation at LLVW

TIRES INFLATION PRESSURES AND TEMPERATURES AFTER CALIBRATION PHASE:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>250.3 kPa (36.3 psi)</td>
<td>255.7 kPa (37.1 psi)</td>
<td>258.5 kPa (37.5 psi)</td>
<td>249.7 kPa (36.2 psi)</td>
</tr>
<tr>
<td>Immediately, after vehicle is stopped, engine off: Inflation Pressure</td>
<td>38.4°C (101.1°F)</td>
<td>33.8°C (92.8°F)</td>
<td>35.4°C (95.7°F)</td>
<td>37.4°C (99.3°F)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>24.6°C (76.3°F)</td>
<td>24.6°C (76.3°F)</td>
<td>24.4°C (75.9°F)</td>
<td>24.2°C (75.6°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>165.5 kPa (24.0 psi)</td>
<td>173.0 kPa (25.1 psi)</td>
<td>173.0 kPa (25.1 psi)</td>
<td>165.5 kPa (24.0 psi)</td>
</tr>
</tbody>
</table>

SYSTEM DETECTION PHASE:

LOCATION AND PRESSURE(S) OF DEFLATED TIRE(S):

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicate Location of Tire(s) Deflated:</td>
<td>165.5 kPa (24.0 psi)</td>
<td>173.0 kPa (25.1 psi)</td>
<td>173.0 kPa (25.1 psi)</td>
<td>165.5 kPa (24.0 psi)</td>
</tr>
<tr>
<td>( X )LF ( X )LR ( X )RR ( X )RF Inflation Pressure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TELLTALE ILLUMINATION:

Starting point: San Angelo Test Facility shop

Illumination at 1:13 minutes (stopwatch time – non-cumulative)

0.2 km (0.1 mi) distance

Driving above 50 km/h was not necessary.

TEST RESULTS

TELLTALE ILLUMINATES WITHIN 20 MINUTES: ( X )YES ( )NO (fail)

After 5 minutes with the ignition locking system in the “Off” or “Lock” position, does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position? ( X )YES ( )NO (fail)

Deactivate the ignition locking system and then re-start the vehicle engine. Does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position? ( X )YES ( )NO (fail)
TPMS OPERATIONAL PERFORMANCE
SCENARIO C – Left Front, Left Rear, Right Rear, and Right Front Tire Deflation at LLVW

TIRE INFLATION PRESSURES AND TEMPERATURES AFTER TELTTALE ILLUMINATION:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After vehicle cool down period:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient Temperature: 24.8°C (76.6°F)</td>
<td>Vehicle cool down period: 60 minutes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inflation Pressure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>158.6 kPa (23.0 psi)</td>
<td>166.6 kPa (24.2 psi)</td>
<td>165.6 kPa (24.0 psi)</td>
<td>158.9 kPa (23.0 psi)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tire Sidewall Temp</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.6°C (85.3°F)</td>
<td>27.2°C (81.0°F)</td>
<td>28.6°C (83.5°F)</td>
<td>30.4°C (86.7°F)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>San Angelo Test Facility Shop Floor Temp</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.6°C (76.3°F)</td>
<td>24.8°C (76.6°F)</td>
<td>25.2°C (77.4°F)</td>
<td>24.6°C (76.3°F)</td>
<td></td>
</tr>
</tbody>
</table>

After the cool down period of a minimum of one hour, does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position?  
( X )YES (   )NO (fail)

TELLTALE EXTINGUISHMENT: 
RE-ADJUSTED TIRE INFLATION PRESSURES:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After illumination verification:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-adjusted Inflation Pressure:</td>
<td>230.0 kPa (33.4 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>230.0 kPa (33.4 psi)</td>
</tr>
</tbody>
</table>

Is it necessary to drive the vehicle to extinguish the telltale?  
( X )YES (   )NO

Starting point: San Angelo Test Facility shop

1:40 minutes (stopwatch time – non-cumulative) 0.3 km (0.2 mi) distance

TEST RESULTS

TPMS Performance Test Results (PASS/FAIL)  
PASS
Left front, left rear, right rear, and right front tires were deflated at LLVW.

REMARKS: None

RECORDED BY: Todd P. Groghan DATE: May 11, 2010
APPROVED BY: Kenneth H. Yates
DATA SHEET 3 (Sheet 12 of 22)
TPMS OPERATIONAL PERFORMANCE

TEST DATE: May 11, 2010 LAB: U.S. DOT San Angelo Test Facility

VEHICLE NHTSA NUMBER: CA5305

Time: Start: 11:45 am End: 2:08 pm

Ambient Temperature: Start: 27.7°C (81.9°F) End: 28.7°C (83.7°F)

Trip Odometer Reading: Start: 318 km (197.7 mi)

Fuel Level: Start: Full

Weather Conditions: Cloudy, light breeze

Time vehicle remained with engine off and tires shielded from direct sunlight (1 hour minimum): 1.5 hours

PRE-TEST TIRE INFLATION PRESSURES AND TIRE/SURFACE TEMPERATURES:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test cold measurements after ambient soak: Inflation Pressure</td>
<td>230.0 kPa (33.4 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>230.0 kPa (33.4 psi)</td>
</tr>
<tr>
<td>Tie Sidewall Temp</td>
<td>29.6°C (85.3°F)</td>
<td>29.0°C (84.2°F)</td>
<td>30.4°C (86.7°F)</td>
<td>30.0°C (86.0°F)</td>
</tr>
</tbody>
</table>
VEHICLE WEIGHT:

Vehicle Ratings from Certification Label:

GVWR: 2,695 kg (5,941 lbs)
GAWR (front): 1,320 kg (2,910 lbs)
GAWR (rear): 1,450 kg (3,197 lbs)

Vehicle Capacity Weight:

Vehicle Capacity Weight: 612 kg (1,349 lbs)

Measured Unloaded Vehicle Weight:

<table>
<thead>
<tr>
<th></th>
<th>Front Axle</th>
<th>Rear Axle</th>
</tr>
</thead>
<tbody>
<tr>
<td>LF</td>
<td>561 kg (1,237 lbs)</td>
<td>LR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>446 kg (983 lbs)</td>
</tr>
<tr>
<td>RF</td>
<td>547 kg (1,206 lbs)</td>
<td>RR</td>
</tr>
<tr>
<td>Front</td>
<td></td>
<td>425 kg (938 lbs)</td>
</tr>
<tr>
<td>Axle</td>
<td>1,108 kg (2,443 lbs)</td>
<td>Rear Axle</td>
</tr>
<tr>
<td></td>
<td></td>
<td>871 kg (1,921 lbs)</td>
</tr>
</tbody>
</table>

Total Vehicle: 1,979 kg (4,364 lbs)

Measured Test Weight: ( ) LLVW (+50, -0 kg) ( X ) UVW + VCW ( ) GVWR (+0, -50 kg)

<table>
<thead>
<tr>
<th></th>
<th>Front Axle</th>
<th>Rear Axle</th>
</tr>
</thead>
<tbody>
<tr>
<td>LF</td>
<td>621 kg (1,368 lbs)</td>
<td>LR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>698 kg (1,539 lbs)</td>
</tr>
<tr>
<td>RF</td>
<td>601 kg (1,326 lbs)</td>
<td>RR</td>
</tr>
<tr>
<td>Front</td>
<td></td>
<td>671 kg (1,480 lbs)</td>
</tr>
<tr>
<td>Axle</td>
<td>1,222 kg (2,694 lbs)</td>
<td>Rear Axle</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,369 kg (3,019 lbs) (≤ GAWR)</td>
</tr>
</tbody>
</table>

Total Vehicle: 2,591 kg (5,713 lbs) (not greater than GVWR)

Note: For scenarios D through F, this Total Vehicle Weight measures the vehicle loaded to Unloaded Vehicle Weight (UVW) and Vehicle Capacity Weight (VCW), 612 kg (1,349 lbs) of driver, passenger, test equipment, and ballast.

RECORDED BY: Todd P. Groghan
DATE: May 11, 2010
APPROVED BY: Kenneth H. Yates
DATA SHEET 3 (Sheet 14 of 22)
TPMS OPERATIONAL PERFORMANCE
SCENARIO D – Left Front Tire Deflation at UVW + VCW

TEST DATE: May 12, 2010  LAB: U.S. DOT San Angelo Test Facility

VEHICLE NHTSA NUMBER: CA5305

Note: See Data Sheet 3 (Sheet 13 of 22) for Test Weight.

TIRE INFLATION PRESSURES AND TIRE/SURFACE TEMPERATURES
BEFORE CALIBRATION PHASE:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After loading vehicle to UVW + VCW, positioning vehicle at selected test start point, and vehicle cool down period:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient Temperature:</td>
<td>25.4°C (77.7°F)</td>
<td>Vehicle cool down period:</td>
<td>overnight</td>
<td></td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>230.0 kPa (33.4 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>230.0 kPa (33.4 psi)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>25.4°C (77.7°F)</td>
<td>25.4°C (77.7°F)</td>
<td>25.4°C (77.7°F)</td>
<td>25.2°C (77.4°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>25.2°C (77.4°F)</td>
<td>25.2°C (77.4°F)</td>
<td>25.2°C (77.4°F)</td>
<td>25.2°C (77.4°F)</td>
</tr>
</tbody>
</table>

SYSTEM CALIBRATION/LEARNING PHASE:

Trip Odometer Reading: Start: 319.0 km (198.2 mi)  End: 350.8 km (218.0 mi)
Ambient Temperature: Start: 25.4°C (77.7°F)  End: 25.4°C (77.7°F)
Roadway Temperature: Start: 26.4°C (79.5°F)  End: 27.6°C (81.7°F)

Driving in first direction:
Starting point: GAFB north gate  Direction: see chart, page 66
10:14 minutes (stopwatch time)  15.8 km (9.8 mi) distance

Driving in opposite direction:
Starting point: US 87 crossover overpass  Direction: see chart, page 66
10:26 minutes (stopwatch time)  16.1 km (10.0 mi) distance

Max speed: 96.7 km/h (60.1 mph)
Total Driving Time: 20:42 minutes (VBox time)
TPMS OPERATIONAL PERFORMANCE
SCENARIO D – Left Front Tire Deflation at UVW + VCW

TIRE INFLATION PRESSURES AND TEMPERATURES AFTER CALIBRATION PHASE:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediately, after vehicle is stopped, engine off: Inflation Pressure</td>
<td>250.7 kPa (36.4 psi)</td>
<td>262.5 kPa (38.1 psi)</td>
<td>265.0 kPa (38.4 psi)</td>
<td>251.5 kPa (36.5 psi)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>40.8°C (105.4°F)</td>
<td>38.2°C (100.8°F)</td>
<td>40.6°C (105.1°F)</td>
<td>40.2°C (104.4°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>26.4°C (79.5°F)</td>
<td>26.0°C (78.8°F)</td>
<td>26.4°C (79.5°F)</td>
<td>25.8°C (78.4°F)</td>
</tr>
</tbody>
</table>

SYSTEM DETECTION PHASE:

LOCATION AND PRESSURE(S) OF DEFLATED TIRE(S):

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicate Location of Tire(s) Deflated:</td>
<td>( X )LF ( )LR ( )RR ( )RF Inflation Pressure</td>
<td>165.5 kPa (24.0 psi)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TELLTALE ILLUMINATION:

Starting point: San Angelo Test Facility shop
Illumination at 0:49 minutes (stopwatch time – non-cumulative)
0.2 km (0.1 mi) distance
Driving above 50 km/h was not necessary.

TEST RESULTS

TELLTALE ILLUMINATES WITHIN 20 MINUTES: ( X )YES ( )NO (fail)

After 5 minutes with the ignition locking system in the “Off” or “Lock” position, does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position? ( X )YES ( )NO (fail)

Deactivate the ignition locking system and then re-start the vehicle engine. Does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position? ( X )YES ( )NO (fail)
TPMS OPERATIONAL PERFORMANCE

SCENARIO D – Left Front Tire Deflation at UVW + VCW

TIRE INFLATION PRESSURES AND TEMPERATURES AFTER TELLTALE ILLUMINATION:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After vehicle cool down period:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient Temperature:</td>
<td>25.4°C (77.7°F)</td>
<td>Vehicle cool down period:</td>
<td>62 minutes</td>
<td></td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>157.5 kPa (22.8 psi)</td>
<td>245.1 kPa (35.5 psi)</td>
<td>247.1 kPa (35.8 psi)</td>
<td>238.4 kPa (34.6 psi)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>30.4°C (86.7°F)</td>
<td>28.2°C (82.8°F)</td>
<td>30.4°C (86.7°F)</td>
<td>32.4°C (90.3°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>25.4°C (77.7°F)</td>
<td>25.2°C (77.4°F)</td>
<td>25.2°C (77.4°F)</td>
<td>25.2°C (77.4°F)</td>
</tr>
</tbody>
</table>

After the cool down period of a minimum of one hour, does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position? (X) YES ( ) NO (fail)

TELLTALE EXTINGUISHMENT:
RE-ADJUSTED TIRE INFLATION PRESSURES:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After illumination verification:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-adjusted Inflation Pressure:</td>
<td>230.0 kPa (33.4 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>230.0 kPa (33.4 psi)</td>
</tr>
</tbody>
</table>

Is it necessary to drive the vehicle to extinguish the telltale? (X) YES ( ) NO

Starting point: San Angelo Test Facility shop

1:21 minutes (stopwatch time – non-cumulative) 0.2 km (0.1 mi) distance

TEST RESULTS

TPMS Performance Test Results (PASS/FAIL) PASS

Left front tire was deflated at UVW + VCW.

REMARKS: None

RECORDED BY: Todd P. Groghan DATE: May 12, 2010

APPROVED BY: Kenneth H. Yates
DATA SHEET 3 (Sheet 17 of 22)
TPMS OPERATIONAL PERFORMANCE
SCENARIO E – Left Front, Right Rear Tire Deflation at UVW + VCW

TEST DATE: May 12, 2010 LAB: U.S. DOT San Angelo Test Facility

VEHICLE NHTSA NUMBER: CA5305

Note: See Data Sheet 3 (Sheet 13 of 22) for Test Weight.

TIRE INFLATION PRESSURES AND TIRE/SURFACE TEMPERATURES
BEFORE CALIBRATION PHASE:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After loading vehicle to UVW + VCW, positioning vehicle at selected test start point, and vehicle cool down period:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient Temperature: 26.4°C (79.5°F)</td>
<td>Vehicle cool down period: 62 minutes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>230.0 kPa (33.4 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>230.0 kPa (33.4 psi)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>29.2°C (84.6°F)</td>
<td>26.8°C (80.2°F)</td>
<td>28.4°C (83.1°F)</td>
<td>29.8°C (85.6°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>25.2°C (77.4°F)</td>
<td>25.4°C (77.7°F)</td>
<td>25.6°C (78.1°F)</td>
<td>25.2°C (77.4°F)</td>
</tr>
</tbody>
</table>

SYSTEM CALIBRATION/LEARNING PHASE:

Time of Data Acquisition: Start: 16:05:30 UTC End: 16:30:54 UTC
Trip Odometer Reading: Start: 353.3 km (219.5 mi) End: 385.1 km (239.3 mi)
Ambient Temperature: Start: 26.4°C (79.5°F) End: 27.4°C (81.3°F)
Roadway Temperature: Start: 33.4°C (92.1°F) End: 34.8°C (94.6°F)

Driving in first direction:
Starting point: GAFB north gate Direction: see chart, page 67
10:11 minutes (stopwatch time) 15.6 km (9.7 mi) distance

Driving in opposite direction:
Starting point: US 87 crossover overpass Direction: see chart, page 67
10:24 minutes (stopwatch time) 16.3 km (10.1 mi) distance

Max speed: 98.4 km/h (61.1 mph)
Total Driving Time: 20:37 minutes (VBox time)
DATA SHEET 3 (Sheet 18 of 22)
TPMS OPERATIONAL PERFORMANCE
SCENARIO E – Left Front, Right Rear Tire Deflation at UVW + VCW

**TIRE INFLATION PRESSURES AND TEMPERATURES AFTER CALIBRATION PHASE:**

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediately, after vehicle is stopped, engine off:</td>
<td>249.7 kPa</td>
<td>263.7 kPa</td>
<td>265.3 kPa</td>
<td>248.8 kPa</td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>(36.2 psi)</td>
<td>(38.2 psi)</td>
<td>(38.5 psi)</td>
<td>(36.1 psi)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>44.2°C</td>
<td>41.4°C</td>
<td>42.8°C</td>
<td>41.4°C</td>
</tr>
<tr>
<td></td>
<td>(111.6°F)</td>
<td>(106.5°F)</td>
<td>(109.0°F)</td>
<td>(106.5°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>26.6°C</td>
<td>26.2°C</td>
<td>26.2°C</td>
<td>25.6°C</td>
</tr>
<tr>
<td></td>
<td>(79.9°F)</td>
<td>(79.2°F)</td>
<td>(79.2°F)</td>
<td>(78.1°F)</td>
</tr>
</tbody>
</table>

**SYSTEM DETECTION PHASE:**

**LOCATION AND PRESSURE(S) OF DEFLATED TIRE(S):**

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicate Location of Tire(s) Deflated:</td>
<td>165.5 kPa</td>
<td>173.0 kPa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>(24.0 psi)</td>
<td>(25.1 psi)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TELLTALE ILLUMINATION:**

Starting point: San Angelo Test Facility shop

Illumination at **0:51** minutes (stopwatch time – non-cumulative)

**0.2 km (0.1 mi) distance**

Driving above 50 km/h was not necessary.

**TEST RESULTS**

**TELLTALE ILLUMINATES WITHIN 20 MINUTES:**

( X )YES    (   )NO (fail)

After 5 minutes with the ignition locking system in the “Off” or “Lock” position, does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position?

( X )YES    (   )NO (fail)

Deactivate the ignition locking system and then re-start the vehicle engine. Does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position?

( X )YES    (   )NO (fail)
TPMS OPERATIONAL PERFORMANCE

SCENARIO E – Left Front, Right Rear Tire Deflation at UVW + VCW

TIRE INFLATION PRESSURES AND TEMPERATURES AFTER TELLTALE ILLUMINATION:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After vehicle cool down period:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient Temperature:</td>
<td>26.5°C (79.7°F)</td>
<td>Vehicle cool down period:</td>
<td>62 minutes</td>
<td></td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>156.0 kPa (22.6 psi)</td>
<td>244.6 kPa (35.5 psi)</td>
<td>160.8 kPa (23.3 psi)</td>
<td>234.5 kPa (34.0 psi)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>31.6°C (88.9°F)</td>
<td>29.8°C (85.6°F)</td>
<td>32.4°C (90.3°F)</td>
<td>33.6°C (92.5°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>26.0°C (78.8°F)</td>
<td>25.8°C (78.4°F)</td>
<td>26.8°C (80.2°F)</td>
<td>25.8°C (78.4°F)</td>
</tr>
</tbody>
</table>

After the cool down period of a minimum of one hour, does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position? (X)YES ( )NO (fail)

TELLTALE EXTINGUISHMENT:

RE-ADJUSTED TIRE INFLATION PRESSURES:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After illumination verification:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-adjusted Inflation Pressure:</td>
<td>230.0 kPa (33.4 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>230.0 kPa (33.4 psi)</td>
</tr>
</tbody>
</table>

Is it necessary to drive the vehicle to extinguish the telltale? (X)YES ( )NO

Starting point: San Angelo Test Facility shop

0:53 minutes (stopwatch time – non-cumulative) 0.2 km (0.1 mi) distance

TEST RESULTS

TPMS Performance Test Results (PASS/FAIL) PASS

Left front and right rear tires were deflated at UVW + VCW.

REMARKS: None

RECORDED BY: Todd P. Groghan DATE: May 12, 2010

APPROVED BY: Kenneth H. Yates
DATA SHEET 3 (Sheet 20 of 22)
TPMS OPERATIONAL PERFORMANCE

SCENARIO F – Left Front, Left Rear, and Right Rear Tire Deflation at UVW + VCW

TEST DATE: May 13, 2010    LAB: U.S. DOT San Angelo Test Facility

VEHICLE NHTSA NUMBER: CA5305

Note: See Data Sheet 3 (Sheet 13 of 22) for Test Weight.

TIRE INFLATION PRESSURES AND TIRE/SURFACE TEMPERATURES
BEFORE CALIBRATION PHASE:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After loading vehicle to UVW + VCW, positioning vehicle at selected test start point, and vehicle cool down period:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient Temperature: 23.8°C (74.8°F)</td>
<td>Vehicle cool down period: overnight</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inflation Pressure</th>
<th>230.0 kPa (33.4 psi)</th>
<th>240.0 kPa (34.8 psi)</th>
<th>240.0 kPa (34.8 psi)</th>
<th>230.0 kPa (33.4 psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tire Sidewall Temp</td>
<td>24.4°C (75.9°F)</td>
<td>24.2°C (75.6°F)</td>
<td>24.4°C (75.9°F)</td>
<td>24.4°C (75.9°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>24.4°C (75.9°F)</td>
<td>24.4°C (75.9°F)</td>
<td>24.6°C (76.3°F)</td>
<td>24.4°C (75.9°F)</td>
</tr>
</tbody>
</table>

SYSTEM CALIBRATION/LEARNING PHASE:

Time of Data Acquisition: Start: 13:02:36 UTC    End: 13:28:02 UTC
Trip Odometer Reading: Start: 387.2 km (240.6 mi)    End: 419.1 km (260.4 mi)
Ambient Temperature: Start: 23.8°C (74.8°F)    End: 23.8°C (74.8°F)
Roadway Temperature: Start: 23.4°C (74.1°F)    End: 25.4°C (77.7°F)

Driving in first direction:
Starting point: GAFB north gate    Direction: see chart, page 68
  10:13 minutes (stopwatch time)    15.8 km (9.8 mi) distance

Driving in opposite direction:
Starting point: US 87 crossover overpass    Direction: see chart, page 68
  10:29 minutes (stopwatch time)    16.1 km (10.0 mi) distance

Max speed: 98.7 km/h (61.3 mph)
Total Driving Time: 20:44 minutes (VBox time)
DATA SHEET 3 (Sheet 21 of 22)
TPMS OPERATIONAL PERFORMANCE
SCENARIO F – Left Front, Left Rear, and Right Rear Tire Deflation at UVW + VCW

TIRE INFLATION PRESSURES AND TEMPERATURES AFTER CALIBRATION PHASE:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediately, after vehicle is stopped, engine off: Inflation Pressure</td>
<td>250.5 kPa (36.3 psi)</td>
<td>262.5 kPa (38.1 psi)</td>
<td>264.5 kPa (38.4 psi)</td>
<td>250.4 kPa (36.3 psi)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>39.0°C (102.2°F)</td>
<td>37.4°C (99.3°F)</td>
<td>37.8°C (100.0°F)</td>
<td>37.4°C (99.3°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>24.6°C (76.3°F)</td>
<td>24.6°C (76.3°F)</td>
<td>24.8°C (76.6°F)</td>
<td>24.6°C (76.3°F)</td>
</tr>
</tbody>
</table>

SYSTEM DETECTION PHASE:

LOCATION AND PRESSURE(S) OF DEFLATED TIRE(S):

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicate Location of Tire(s) Deflated: Inflation Pressure</td>
<td>165.5 kPa (24.0 psi)</td>
<td>173.0 kPa (25.1 psi)</td>
<td>173.0 kPa (25.1 psi)</td>
<td></td>
</tr>
</tbody>
</table>

TELLTALE ILLUMINATION:

Starting point: San Angelo Test Facility shop

Illumination at 1:24 minutes (stopwatch time – non-cumulative)

0.2 km (0.1 mi) distance

Driving above 50 km/h was not necessary.

TEST RESULTS

TELLTALE ILLUMINATES WITHIN 20 MINUTES: (X) YES ( ) NO (fail)

After 5 minutes with the ignition locking system in the “Off” or “Lock” position, does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position? (X) YES ( ) NO (fail)

Deactivate the ignition locking system and then re-start the vehicle engine. Does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position? (X) YES ( ) NO (fail)
TPMS OPERATIONAL PERFORMANCE

SCENARIO F – Left Front, Left Rear, and Right Rear Tire Deflation at UVW + VCW

TIRE INFLATION PRESSURES AND TEMPERATURES AFTER TELTTALE ILLUMINATION:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After vehicle cool down period:</td>
<td>156.3 kPa (22.7 psi)</td>
<td>162.0 kPa (23.5 psi)</td>
<td>161.1 kPa (23.4 psi)</td>
<td>237.0 kPa (34.4 psi)</td>
</tr>
<tr>
<td>Ambient Temperature:</td>
<td>23.1°C (73.6°F)</td>
<td>Vehicle cool down period: 63 minutes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation Pressure</td>
<td>30.6°C (87.1°F)</td>
<td>27.8°C (82.0°F)</td>
<td>26.6°C (79.9°F)</td>
<td>29.2°C (84.6°F)</td>
</tr>
<tr>
<td>Tire Sidewall Temp</td>
<td>24.4°C (75.9°F)</td>
<td>24.2°C (75.6°F)</td>
<td>24.4°C (75.9°F)</td>
<td>24.6°C (76.3°F)</td>
</tr>
<tr>
<td>San Angelo Test Facility Shop Floor Temp</td>
<td>24.4°C (75.9°F)</td>
<td>24.2°C (75.6°F)</td>
<td>24.4°C (75.9°F)</td>
<td>24.6°C (76.3°F)</td>
</tr>
</tbody>
</table>

After the cool down period of a minimum of one hour, does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position?  
( X )YES   (   )NO (fail)

TELLTALE EXTINGUISHMENT:

RE-ADJUSTED TIRE INFLATION PRESSURES:

<table>
<thead>
<tr>
<th>Execution Procedure</th>
<th>LF Tire</th>
<th>LR Tire</th>
<th>RR Tire</th>
<th>RF Tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>After illumination verification:</td>
<td>230.0 kPa (33.4 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>230.0 kPa (33.4 psi)</td>
</tr>
<tr>
<td>Re-adjusted Inflation Pressure:</td>
<td>230.0 kPa (33.4 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>240.0 kPa (34.8 psi)</td>
<td>230.0 kPa (33.4 psi)</td>
</tr>
</tbody>
</table>

Is it necessary to drive the vehicle to extinguish the telltale?  
( X )YES   (   )NO

Starting point: San Angelo Test Facility shop

1:29 minutes (stopwatch time – non-cumulative)  0.3 km (0.2 mi) distance

TEST RESULTS

TPMS Performance Test Results (PASS/FAIL)  
PASS

Left front, left rear, and right rear tires were deflated at UVW + VCW.

REMARKS: None

RECORDED BY: Todd P. Groghan  DATE: May 13, 2010

APPROVED BY: Kenneth H. Yates
TEST DATE: May 10, 2010 LAB: U.S. DOT San Angelo Test Facility

VEHICLE NHTSA NUMBER: CA5305

Time of Data Acquisition: Start: 17:46:37 UTC End: 18:10:39 UTC
Trip Odometer Reading: Start: 238.7 km (148.3 mi) End: 265.4 km (164.9 mi)
Ambient Temperature: Start: 29.6°C (85.3°F) End: 31.3°C (88.3°F)
Roadway Temperature: Start: 43.4°C (110.1°F) End: 39.8°C (103.6°F)
Fuel Level: Start: Full

Note: See Data Sheet 3 (Sheet 2 of 22) for Test Weight.

TPMS TYPE: (X) Direct ( ) Indirect ( ) Other Describe: ________________

TPMS MALFUNCTION TELLTALE: (X) Dedicated stand-alone ( ) Combination low tire pressure warning/malfunction telltale

METHOD OF MALFUNCTION SIMULATION:
Describe method of malfunction simulation: __Spare tire without TPMS sensor was applied to right front at LLVW.

MALFUNCTION TELLTALE ILLUMINATION
(after ignition locking system is activated to “On” (“Run”) position):

Dedicated Malfunction Telltale

Driving in first direction:
Starting point: San Angelo Test Facility shop Direction: see chart, page 69

26.7 km (16.6 mi) distance

Max speed: 99.6 km/h (61.9 mph)
Total Driving Time: 15:56 minutes (VBox time)

TELLTALE ILLUMINATES WITHIN 20 MINUTES: (X) YES ( ) NO
After 5 minutes with the ignition locking system in the “Off” or “Lock” position, does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position? ( X ) YES ( ) NO (fail)

Deactivate the ignition locking system and then re-start the vehicle engine. Does the telltale re-illuminate and stay illuminated for at least 60 seconds when the ignition locking system is activated to the “On” or “Run” position? ( X ) YES ( ) NO (fail)

**Extinguishment Phase:**

Restore the TPMS to normal operation. Is it necessary to drive the vehicle to extinguish the telltale? ( X ) YES ( ) NO

Starting point: San Angelo Test Facility shop

1:22 minutes (stopwatch time – non-cumulative) 0.2 km (0.1 mi) distance

**DEDICATED MALFUNCTION TELTALTE EXTINGUISHED:** ( X ) YES ( ) NO (FAIL)

**TPMS MALFUNCTION PERFORMANCE TEST RESULTS (PASS/FAIL)** PASS

Spare without TPMS sensor was applied to right front at LLVW.

**REMARKS:** None

**RECORDED BY:** Todd P. Groghan **DATE:** May 10, 2010

**APPROVED BY:** Kenneth H. Yates
DATA SHEET 4 (Sheet 3 of 4)
Scenario H – Malfunction Detection Test –
TPMS Fuse Removed

TEST DATE: May 11, 2010 LAB: U.S. DOT San Angelo Test Facility

VEHICLE NHTSA NUMBER: CA5305

Time: Start: 2:15 pm End: 2:35 pm
Trip Odometer Reading: Start: 318.2 km (197.7 mi) End: 318.2 km (197.7 mi)
Ambient Temperature: Start: 29.9°C (85.8°F) End: 29.9°C (85.8°F)
Roadway Temperature: Start: N/A End: N/A
Fuel Level: Start: Full

Note: See Data Sheet 3 (Sheet 2 of 22) for Test Weight.

TPMS TYPE: (X) Direct   ( ) Indirect   ( ) Other   Describe: ____________________________

TPMS MALFUNCTION TELLTALE:
(X) Dedicated stand-alone   ( ) Combination low tire pressure warning/malfunction telltale

METHOD OF MALFUNCTION SIMULATION:
Describe method of malfunction simulation: TPMS fuse in driver-side kick panel was removed.

MALFUNCTION TELLTALE ILLUMINATION
(after ignition locking system is activated to “On” (“Run”) position):

Dedicated Malfunction Telltale
Telltale illuminated immediately upon start-up. Driving was not necessary

TELLTALE ILLUMINATES WITHIN 20 MINUTES: (X) YES   ( ) NO
Scenario H – Malfunction Detection Test – TPMS Fuse Removed

After 5 minutes with the ignition locking system in the “Off” or “Lock” position, does the telltale re-illuminate and stay illuminated when the ignition locking system is activated to the “On” or “Run” position? (X)YES ( )NO (fail)

Deactivate the ignition locking system and then re-start the vehicle engine. Does the telltale re-illuminate and stay illuminated for at least 60 seconds when the ignition locking system is activated to the “On” or “Run” position? (X)YES ( )NO (fail)

Extinguishment Phase:

Restore the TPMS to normal operation. Is it necessary to drive the vehicle to extinguish the telltale? ( )YES (X)NO

DEDICATED MALFUNCTION TELLTALE EXTINGUISHED: (X)YES ( )NO (FAIL)

TPMS MALFUNCTION PERFORMANCE TEST RESULTS (PASS/FAIL) PASS

TPMS fuse was removed.

REMARKS: None

RECORDED BY: Todd P. Groghan DATE: May 11, 2010

APPROVED BY: Kenneth H. Yates
The following statement, in the English language, is provided verbatim in the Owner's Manual.

( X )YES ( )NO

"Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label. (If your vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label, you should determine the proper tire inflation pressure for those tires.)

As an added safety feature, your vehicle has been equipped with a tire pressure monitoring system (TPMS) that illuminates a low tire pressure telltale when one or more of your tires is significantly under-inflated. Accordingly, when the low tire pressure telltale illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces fuel efficiency and tire tread life, and may affect the vehicle’s handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver’s responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire pressure telltale."
As specified, the following sections, in the English language, are required verbatim in paragraph form in the Owner’s Manual:

*The following statement is required for all vehicles certified to the standard starting on September 1, 2007 and for vehicles voluntarily equipped with a compliant TPMS MIL before that time.*

"Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly."

The above statement in the English language is provided verbatim in owner’s manual:  
( X )YES  ( )NO

*For vehicles with a dedicated MIL telltale, add the following statement:*

"The TPMS malfunction indicator is provided by a separate telltale, which displays the symbol “TPMS” when illuminated."

The above statement in the English language is provided verbatim in owner’s manual:  
( X )YES  ( )NO  ( )N/A

*For vehicles with a combined low tire pressure/MIL telltale, add the following statement:*

The TPMS malfunction indicator is combined with the low tire pressure telltale. When the system detects a malfunction, the telltale will flash for approximately one minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists.

The above statement in the English language is provided verbatim in owner’s manual:  
( )YES  ( )NO  ( X )N/A

*The following statement is required for all vehicles certified to the standard starting on September 1, 2007 and for vehicles voluntarily equipped with a compliant TPMS MIL before that time.*

“When the malfunction indicator is illuminated, the system may not be able to detect or signal low tire pressure as intended. TPMS malfunctions may occur for a variety of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.”

The above statement in the English language is provided verbatim in owner’s manual:  
( X )YES  ( )NO

DATA INDICATES COMPLIANCE:  
PASS/FAIL:  PASS
Does the Owner’s Manual provide an image of the Low Tire Pressure Warning Telltale symbol (and an image of the TPMS Malfunction Telltale warning (“TPMS”), if a dedicated telltale is utilized for this function)?

( X )YES  (   )NO

Does the Owner’s Manual include the following (allowable) information?

☑ Significance of the low tire pressure warning telltale illuminating

☑ A description of corrective action to be undertaken

☑ Whether the tire pressure monitoring system functions with the vehicle’s spare tire (if provided)

☐ How to use a reset button, if one is provided

☑ The time for the TPMS telltale(s) to extinguish once the low tire pressure condition or the malfunction is corrected

REMARKS:  None

RECORDED BY:  Todd P. Groghan  DATE:  May 7, 2010

APPROVED BY:  Kenneth H. Yates
## SECTION 4
TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

<table>
<thead>
<tr>
<th>EQUIPMENT</th>
<th>DESCRIPTION</th>
<th>MODEL/ SERIAL NO</th>
<th>CAL. DATE</th>
<th>NEXT CAL. DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOPWATCH</td>
<td>CHAMPION SPORTS TIMER</td>
<td>910 R</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>AMBIENT TEMPERATURE GAUGE</td>
<td>FLUKE 179 DIGITAL THERMOMETER</td>
<td>SERIAL # 84740316</td>
<td>2/24/2010</td>
<td>2/24/2011</td>
</tr>
<tr>
<td>LASER TEMPERATURE GAUGE (TIRES AND GROUND)</td>
<td>RAYTEK ST20</td>
<td>SERIAL 2065640101-0014</td>
<td>8/19/2009</td>
<td>8/19/2010</td>
</tr>
<tr>
<td>AIR PRESSURE GAUGE</td>
<td>ASHCROFT GENERAL PURPOSE DIGITAL GAUGE</td>
<td>MODEL # D1005PS 02L 100 PSI SERIAL # 20017398-01</td>
<td>12/9/2009</td>
<td>12/9/2010</td>
</tr>
<tr>
<td>FLOOR SCALES (VEHICLE)</td>
<td>INTERCOMP SW DELUXE SCALES</td>
<td>PART # 100156 SERIAL # 24032382</td>
<td>7/28/2009</td>
<td>7/28/2010</td>
</tr>
<tr>
<td>PLATFORM SCALE (BALLAST)</td>
<td>HOWE RICHARDSON</td>
<td>MODEL # 6401 SERIAL # 0181-5509-26</td>
<td>7/28/2009</td>
<td>7/28/2010</td>
</tr>
</tbody>
</table>
SECTION 5
PHOTOGRAPHS
FIGURE 5.1
3/4 FRONT VIEW FROM LEFT SIDE OF VEHICLE

2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO.138
MFD. BY HONDA MFG. OF ALABAMA, LLC 12/ 09
GVWR 2695KG (5941LBS) TIRE SIZE 16X7J
GAWR F 1320KG (2910LBS) 235/65R16 103T 16X7J
GAWR R 1450KG (3197LBS) 235/65R16 103T 16X7J
THIS VEHICLE CONFORMS TO ALL APPLICABLE
FEDERAL MOTOR VEHICLE SAFETY
AND THEFT PREVENTION STANDARDS IN EFFECT
ON THE DATE OF MANUFACTURE SHOWN ABOVE.
V.I.N.: 5FNRL3H21AB039382 TYPE: MPV

2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO.138

FIGURE 5.2
VEHICLE CERTIFICATION LABEL
<table>
<thead>
<tr>
<th>TIRE</th>
<th>SIZE</th>
<th>COLD TIRE PRESSURE</th>
<th>SEE OWNER’S MANUAL FOR ADDITIONAL INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRONT</td>
<td>235/65R16 103T</td>
<td>230KPA, 33PSI</td>
<td></td>
</tr>
<tr>
<td>REAR</td>
<td>240KPA, 35PSI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPARE</td>
<td>T135/80D17 103M</td>
<td>420KPA, 60PSI</td>
<td></td>
</tr>
</tbody>
</table>

The combined weight of occupants and cargo should never exceed 612 kg or 1349 lbs.
2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO. 138

FIGURE 5.4
TIRE SHOWING BRAND
2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO. 138

FIGURE 5.5
TIRE SHOWING MODEL
2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO. 138

FIGURE 5.6
TIRE SHOWING SIZE AND LOAD INDEX/SPEED RATING
FIGURE 5.7
TIRE SHOWING DOT SERIAL NUMBER

2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO. 138
FIGURE 5.8
TIRE SHOWING MAX LOAD RATING AND MAX COLD INFLATION PRESSURE

2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO. 138

CANADA AND U.S. CODES ONLY
MAX. LOAD 875 kg (1929 LBS)
MAX. PRESS. 300 kPa (44 P.S.I.)
TREAD PLIES: 2 POLYESTER
+ 1 POLYAMIDE + 2 STEEL
SIDEWALL PLIES: 2 POLYESTER
2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO. 138

FIGURE 5.11
DISPLAY SHOWING LOW TIRE PRESSURE WARNING TELLTALE
2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO. 138

FIGURE 5.12
DISPLAY SHOWING DEDICATED TPMS
MALFUNCTION WARNING TELLTALE
2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO 138

FIGURE 5.13
TEST INSTRUMENTATION INSTALLED IN VEHICLE
2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO. 138

FIGURE 5.14
VEHICLE CARGO AREA BALLAST FOR LLVW LOAD
2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO. 138

FIGURE 5.15
VEHICLE SECOND ROW BALLAST FOR UVW + VCW LOAD
2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO. 138

FIGURE 5.16
VEHICLE THIRD ROW BALLAST FOR UVW + VCW LOAD
2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO. 138

FIGURE 5.17
VEHICLE CARGO AREA BALLAST FOR UVW + VCW LOAD
2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO. 138

FIGURE 5.18
VEHICLE ON WEIGHT SCALES
2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO. 138

FIGURE 5.20
SPARE INSTALLED ON RIGHT FRONT
FIGURE 5.20
FUSE CHART -
TPMS FUSE REMOVED

2010 HONDA ODYSSEY
NHTSA NO. CA5305
FMVSS NO. 138
SECTION 6
TEST PLOTS
Scenario A: Left Rear Tire at LLVW
Test Date: 5/7/10
Data File Time: 25:40 minutes
Cumulative Driving Time: 20:37 minutes
Start Point: GAFB north gate

Calibration Phase:

LR Detection Phase: Telltale illuminated 1:32 minutes after lamp check. Driving above 50 km/h was not necessary.
Scenario B: Left Rear, Right Rear Tires at LLVV

Test Date: 5/10/10
Data File Time: 25:24 minutes
Cumulative Driving Time: 20:36 minutes
Start Point: GAFB north gate

Calibration Phase:

LR, RR Detection Phase: Telltale illuminated 2:17 minutes after lamp check. Driving above 50 km/h was not necessary.
Scenario C: Left Front, Left Rear, Right Rear, Right Front Tires at LLVW

Test Date: 5/11/10
Data File Time: 25:24 minutes
Cumulative Driving Time: 20:41 minutes
Start Point: GAFB north gate

Calibration Phase:

2010 Honda Odyssey (CA6305) LF, LR, RR, RF Calibration LLVW

Log Rate := 100.00 Hz

Speed Trace

LF, LR, RR, RF Detection Phase: Telltale illuminated 1:13 minutes after lamp check. Driving above 50 km/h was not necessary.
Scenario D: Left Front Tire at UVW + VCW
Test Date: 5/12/10
Data File Time: 25:24 minutes
Cumulative Driving Time: 20:42 minutes
Start Point: GAFB north gate

Calibration Phase:

2010 Honda Odyssey (CA5305) LF Calibration UWW+VCW

Log Rate := 100.00 Hz

LF Detection Phase: Telltale illuminated 0:49 minutes after lamp check. Driving above 50 km/h was not necessary.
Scenario E: Left Front, Right Rear Tires at UVW + VCW
Test Date: 5/12/10
Data File Time: 25:24 minutes
Cumulative Driving Time: 20:37 minutes
Start Point: GAFB north gate

Calibration Phase:

2010 Honda Odyssey (CA5305) LF, RR Calibration UVW+VCW

LF, RR Detection Phase: Telltale illuminated 0:51 minutes after lamp check. Driving above 50 km/h was not necessary.
Scenario F: Left Front, Left Rear, Right Rear Tires at UVW + VCW
Test Date: 5/13/10
Data File Time: 25:26 minutes
Cumulative Driving Time: 20:44 minutes
Start Point: GAFB north gate

Calibration Phase:

2010 Honda Odyssey (CA5305) LF, LR, RR Calibration UVW+VCW

LF, LR, RR Detection Phase: Telltale illuminated 1:24 minutes after lamp check. Driving above 50 km/h was not necessary.
Scenario G: Malfunction Detection Test at LLVW
Test Date: 5/10/10
Data File Time: 24:02 minutes
Cumulative Driving Time: 15:56 minutes
Start Point: San Angelo Test Facility shop

Malfunction Telltale Illumination:

[Graph showing speed trace and malfunction illumination]
SECTION 7
OWNER’S MANUAL PAGES
Tire Pressure Monitoring System (TPMS) — Except Touring models

On LX, EX, EX-L, and Canadian DX, SE models
Your vehicle is equipped with a tire pressure monitoring system (TPMS) that turns on every time you start the engine and monitors the pressure in your tires while driving.

Each tire has its own pressure sensor (not including the spare tire). If the air pressure of a tire becomes significantly low while driving, the sensor in that tire immediately sends a signal that causes the low tire pressure indicator to come on.

⚠️ Low Tire Pressure Indicator
When the low tire pressure indicator is on, one or more of your tires is significantly underinflated. You should stop and check your tires as soon as possible, and inflate them to the proper pressure as indicated on the vehicle’s tire information placard.

If you think you can safely drive a short distance to a service station, proceed slowly, and inflate the tire to the recommended pressure shown on the driver’s doorjamb.

If the tire is flat, or if the tire pressure is too low to continue driving, replace the tire with the compact spare tire (see page 462).

If you cannot make the low tire pressure indicator go out after inflating the tires to the specified values, have your dealer check the system as soon as possible.

Driving on a significantly underinflated tire causes the tire to overheat and can lead to tire failure. Underinflation also reduces fuel efficiency and tire tread life, and may affect the vehicle’s handling and stopping ability.

Because tire pressure varies by temperature and other conditions, the low tire pressure indicator may come on unexpectedly.
Tire Pressure Monitoring System (TPMS) — Except Touring models

Changing a Tire with TPMS
If you have a flat tire, the low tire pressure indicator will come on. Replace the flat tire with the compact spare tire (see page 462).

Each wheel (except the compact spare tire wheel) is equipped with a tire pressure sensor mounted inside the tire behind the valve stem. You must use TPMS specific wheels. It is recommended that you always have your tires serviced by your dealer or qualified technician.

After you replace the flat tire with the compact spare tire, the low tire pressure indicator stays on. This is normal; the system is not monitoring the spare tire pressure. Manually check the spare tire pressure to be sure it is correct. After several miles (kilometers) driving with the compact spare tire, the TPMS indicator comes on and the low tire pressure indicator goes off.

The low tire pressure indicator or the TPMS indicator will go off, after several miles (kilometers) driving, when you replace the spare tire with the specified regular tire equipped with the tire pressure monitor sensor.

Never use a puncture-repairing agent in a flat tire. If used, you will have to replace the tire pressure sensor. Have the flat tire repaired by your dealer as soon as possible.

As required by the FCC:
This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Industry Canada Standard RSS-210. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference that may cause undesired operation of the device.
Tire Pressure Monitoring System (TPMS) — Required Federal Explanation

*All models*

Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label.

(If your vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label, you should determine the proper tire inflation pressure for those tires.)

As an added safety feature, your vehicle has been equipped with a tire pressure monitoring system (TPMS) that illuminates a low tire pressure telltale

when one or more of your tires is significantly under-inflated.

Accordingly, when the low tire pressure pressure telltale illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure.

Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Underinflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire pressure telltale.
Tire Pressure Monitoring System (TPMS) — Required Federal Explanation

Except Touring models
Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly. The TPMS malfunction indicator is provided by a separate telltale, which displays the symbol “TPMS” when illuminated.

When the malfunction indicator is illuminated,

always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

TPMS malfunctions may occur for a variety of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly.