SAFETY COMPLIANCE TESTING FOR
FMVSS NO. 110
TIRE SELECTION AND RIMS

FORD MOTOR COMPANY
2011 FORD F150 TRUCK
NHTSA NO. CB0201

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

August 19, 2011
FINAL REPORT

PREPARED FOR

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

Approved By: [Signature]

Accepted By: [Signature]

Acceptance Date: 8/19/11
Compliance tests were conducted on the subject 2011 Ford F150 truck in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-110T-02 for the determination of FMVSS 110 compliance. Test failures identified were as follows: None.
# 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>3</td>
</tr>
<tr>
<td>4 Test Equipment List and Calibration Information</td>
<td>20</td>
</tr>
<tr>
<td>5 Photographs</td>
<td>21</td>
</tr>
</tbody>
</table>

**Figure**

- 5.1 ¾ Front View from Left Side of Vehicle
- 5.2 ¾ Rear View from Right Side of Vehicle
- 5.3 Vehicle Certification Label
- 5.4 Vehicle Placard
- 5.5 Tire Showing Brand
- 5.6 Tire Showing Model
- 5.7 Tire Showing Size, Load Index, and Speed Symbol
- 5.8 Tire Showing Max Load Rating and Max Inflation Pressure
- 5.9 Tire Showing Serial Number
- 5.10 Rim Markings Including Letter Designation for Source of Published Dimensions, Size, Dot Symbol, Manufacturer’s Symbol, Manufacture Date, and Other Rim Markings
- 5.11 Additional Rim Markings
- 5.12 Rim Contour for Full Width of Cross Section
- 5.13 Vehicle Seat Ballasted for Normal Load
- 5.14 Vehicle Seat Ballasted for Full and Maximum Loads
- 5.15 Vehicle Cargo Area Ballasted for Maximum Load
- 5.16 Vehicle on Weight Scales
1.1 PURPOSE OF COMPLIANCE TEST

A 2011 Ford F150 truck was tested to determine if the vehicle was in compliance with the requirements of FMVSS 110. All tests were conducted in accordance with NHTSA, Office of Vehicle Safety Compliance (OVSC) Laboratory Test Procedure, TP-110T-02, dated August 31, 2007.

This standard establishes requirements to ensure that applicable vehicles are equipped with tires of adequate size and load rating and rims of appropriate size and type designation. This standard also establishes location, content, and format requirements for the Vehicle Placard and optional Tire Inflation Pressure Label.

1.2 TEST VEHICLE

The test vehicle was a 2011 Ford F150 truck. Nomenclatures applicable to the test vehicle are:

A. Vehicle Identification Number: 1FTMF1CM4BFA50176
B. NHTSA Number: CB0201
C. Manufacturer: Ford Motor Company
D. Manufacture Date: 12/2010

1.3 TEST DATE

The test vehicle was tested April 7, 2011.
SECTION 2

TEST PROCEDURE AND SUMMARY OF RESULTS

2.1 TEST PROCEDURE

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 information was recorded. The owner’s manual was reviewed. Pertinent information from the tire and rim was photographed.

Subsequent events included weighing the vehicle to establish delivered Unloaded Vehicle Weight and the distribution of weight on the front and rear axles and each wheel position. The vehicle was ballasted to its Normal Load, Full Occupant Load, and Maximum Vehicle Load weight. At each step of the ballasting procedure, data was recorded. Ballast was photographically documented for Normal, Full, and Maximum Vehicle Load weight. The vehicle maximum load on each wheel was measured. Data from each tire furnished with the vehicle were recorded. Tire size information was taken from vehicle certification label and vehicle placard. The right front wheel was removed from the vehicle and the tire was dismounted from the rim. The rim was measured from flange to flange, and rim markings were photographically documented. The tires and rims labeled and installed on the vehicle were verified to be appropriate for the loading and load ratings of the vehicle. The owner’s manual was checked for all required information on tire loading, and on general tire and loading parameters.

2.2 SUMMARY OF RESULTS

The Ford F150 truck test vehicle appears to be in compliance with all FMVSS 110 requirements tested.
SECTION 3
TEST DATA
DATA SUMMARY SHEET (1 of 2)

VEHICLE MAKE/MODEL/BODY STYLE: 2011 Ford F150 truck

VEHICLE NHTSA NUMBER: CB0201  VIN: 1FTMF1CM4BFA50176

VEHICLE TYPE: Truck  DATE OF MANUFACTURE: 12/2010

LABORATORY: U.S. DOT San Angelo Test Facility

LIGHT TRUCK TYPE REQUIREMENTS

PASS/FAIL

General (Data Sheet 2)

The vehicle must be equipped with tires that meet the requirements of S139. (S110, S4.1)  

PASS

Tire Load Limits (Data Sheet 2)

The sum of the maximum load ratings of the tires fitted to an axle is not less than the gross axle weight rating (GAWR) of the axle system as specified on the certification label. When passenger car tires are installed, each tire’s load rating is reduced by dividing it by 1.10 before determining the sum of the maximum load ratings of the tires fitted to an axle. (S110, S4.2.2.1, S4.2.2.2)

PASS

When passenger car tires are installed, the vehicle normal load on the tire is not greater than the value of 94 percent of the de-rated load rating at the vehicle manufacturer’s recommended cold inflation pressure for that tire. When LT tires are installed, the vehicle normal load on the tire is not greater than the value of 94 percent of the load rating at the vehicle manufacturer’s recommended cold inflation pressure for that tire. (S110, S4.2.2.3(a), (b))

PASS

Rim (Data Sheet 3)

Each rim is constructed to the dimensions of a rim referred to in FMVSS 139 that is listed by the manufacturer of the tires as suitable for use with those tires. (S110, S4.4.1(a))

PASS

Each rim is properly marked. (S110, S4.4.2)

PASS

Vehicle rims retain deflated tires during a controlled braking application. (S110, S4.4.1(b))

See Remarks
Certification, Placard, and Tire Inflation Pressure Labels  (Data Sheet 4)

The placard and tire inflation pressure label (if provided) are affixed and located correctly, and display the information and format required.  
(S110, S4.3)  
PASS

The Part 567 certification label shows the size designation of the tires and and rims appropriate for the vehicle including the tire size(s) listed on the vehicle placard and, if provided, tire inflation pressure label.  
(S110, S4.3.3)  
PASS

No inflation pressure other than the maximum permissible inflation pressure is shown on the placard and, if any, tire inflation pressure label unless as required.  
(S110, S4.3.4)  
PASS

Vehicle Weight Distribution  (Data Sheet 5)

The Gross Vehicle Weight Rating (GVWR) is not less than the sum of the unloaded vehicle weight, rated cargo load, and 68 kg times the vehicle’s designated seating capacity.  However, for school buses, the minimum occupant weight allowance is 54 kg.  
(49 CFR 567, Certification)  
PASS

Owner’s Manual  (Data Sheet 6)

Owner’s manual or other document has discussion of Vehicle Placard, Loading and Tires.  
(575.6(a)(4))  
PASS

Owner’s manual includes exact statement relating to “Steps for Determining Correct Load Limits”.  
(575.6(a)(5))  
PASS

REMARKS:  The rim retention test required by FMVSS No.110, paragraph S4.4.1(b) was not executed on the subject Ford F150.

RECORDED BY:  Todd P. Groghan  
DATE:  April 7, 2011

APPROVED BY:  Kenneth H. Yates
DATA SHEET 1
TEST VEHICLE INFORMATION / RECEIVING INSPECTION

VEHICLE MAKE/MODEL/BODY STYLE: 2011 Ford F150 truck

VEHICLE NHTSA NUMBER: CB0201  TEST DATE: April 7, 2011

VIN: 1FTMF1CM4BFA50176  MANUFACTURE DATE: 12/2010

GVWR: 2,926 kg (6,450 lbs)  GAWR (front): 1,361 kg (3,000 lbs)
GAWR (rear): 1,588 kg (3,500 lbs)

SEATING POSITIONS: FRONT 3  Rear N/A

ODOMETER READING AT START OF TEST: 183 km (114 mi)

ENGINE DATA: 6 Cylinders  3.7 Liters  ___ Cubic Inches

TRANSMISSION DATA: X Automatic  ____ Manual  6 No. of Speeds

FINAL DRIVE DATA: X Rear Drive  ____ Front Drive  ____ 4 Wheel Drive

CHECK APPROPRIATE BOXES FOR INSTALLED VEHICLE EQUIPMENT:

<table>
<thead>
<tr>
<th></th>
<th>Air Conditioning</th>
<th>Traction Control</th>
<th>Clock</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tinted Glass</td>
<td>Tachometer</td>
<td>Roof Rack</td>
</tr>
<tr>
<td>X</td>
<td>Power Steering</td>
<td>Cruise Control</td>
<td>Console</td>
</tr>
<tr>
<td></td>
<td>Power Windows</td>
<td>Rear Window Defroster</td>
<td>X Driver Air Bag</td>
</tr>
<tr>
<td></td>
<td>Power Door Locks</td>
<td>Sun Roof or T-Top</td>
<td>X Passenger Air Bag</td>
</tr>
<tr>
<td></td>
<td>Power Seat(s)</td>
<td>Tilt Steering Wheel</td>
<td>X Side Curtain Air Bag(s)</td>
</tr>
<tr>
<td>X</td>
<td>Power Brakes</td>
<td>Stereo</td>
<td>X Front Disc Brakes</td>
</tr>
<tr>
<td>X</td>
<td>Antilock Brake System</td>
<td>Telephone</td>
<td>X Rear Disc Brakes</td>
</tr>
<tr>
<td></td>
<td>Navigation System</td>
<td>Trailer Hitch</td>
<td>Other -</td>
</tr>
</tbody>
</table>

REMARKS: None

RECORDED BY: Todd P. Groghan  DATE: April 7, 2011

APPROVED BY: Kenneth H. Yates
DATA SHEET 2 (1 of 2)
VEHICLE TIRE IDENTIFICATION AND LOAD LIMITS

VEHICLE MAKE/MODEL/BODY STYLE: 2011 Ford F150 truck

VEHICLE NHTSA NUMBER: CB0201    VIN: 1FTMF1CM4BFA50176

LABORATORY: U.S. DOT San Angelo Test Facility    TEST DATE: April 7, 2011

All tires on the vehicle (excluding the spare) are the same make and model: ( X ) YES ( ) NO
All tires on the vehicle (excluding the spare) are the same size: ( X ) YES ( ) NO
Spare tire is the same size as all other tires: ( X ) YES ( ) NO

<table>
<thead>
<tr>
<th>Tire Sidewall</th>
<th>Right Front</th>
<th>Left Rear (If different)</th>
<th>Spare Tire (If different)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer and Model</td>
<td>Hankook DynaPro AT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tire Size Designation</td>
<td>P235/75R17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Load Index/Speed Symbol</td>
<td>108S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Inflation Pressure</td>
<td>300 kPa (44 psi)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Load Rating</td>
<td>1,000 kg (2,205 lbs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tread/Traction/Temperature</td>
<td>460/B/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tires Have “DOT” Markings</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Serial Number: Right Front T79JPCYH3710    Left Front T79JPCYH3710
Right Rear T79JPCYH3710    Left Rear T79JPCYH3510
Spare T79JPCYH3710
**VEHICLE TIRE IDENTIFICATION AND LOAD LIMITS**

### MOUNTED TIRE VS. AXLE RATING COMPARISON (at sidewall maximum inflation pressure)

<table>
<thead>
<tr>
<th></th>
<th>FRONT AXLE</th>
<th>REAR AXLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. GAWR from certification label</td>
<td>1,361 kg (3,000 lbs)</td>
<td>1,588 kg (3,500 lbs)</td>
</tr>
<tr>
<td>B. Tire Maximum Load Rating from above</td>
<td>1,000 kg (2,205 lbs)</td>
<td>1,000 kg (2,205 lbs)</td>
</tr>
<tr>
<td>C. Reduced tire load rating if applicable*</td>
<td>909 kg (2,005 lbs)</td>
<td>909 kg (2,005 lbs)</td>
</tr>
<tr>
<td>D. (No. of tires) x (Tire load rating de-rated if appropriate)</td>
<td>1,818 kg (4,010 lbs)</td>
<td>1,818 kg (4,010 lbs)</td>
</tr>
</tbody>
</table>

* If a passenger car tire is installed on a multipurpose passenger vehicle (TRUCK), truck or bus, the tire’s load rating is reduced by dividing by 1.10.

**DATA INDICATES COMPLIANCE:**

**PASS/FAIL:** PASS

**REMARKS:** None

**RECORDED BY:** Todd P. Groghan  **DATE:** April 7, 2011

**APPROVED BY:** Kenneth H. Yates
DATA SHEET 3
VEHICLE RIM IDENTIFICATION

VEHICLE MAKE/MODEL/BODY STYLE: 2011 Ford F150 truck

VEHICLE NHTSA NUMBER: CB0201 VIN: 1FTMF1CM4BFA50176

LABORATORY: U.S. DOT San Angelo Test Facility TEST DATE: April 7, 2011

<table>
<thead>
<tr>
<th>Rim Markings</th>
<th>RIGHT FRONT</th>
<th>LEFT REAR (if different)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Source of published dimensions (letter designation)</td>
<td>T</td>
<td></td>
</tr>
<tr>
<td>B. Rim Size Designation</td>
<td>17X7½J</td>
<td></td>
</tr>
<tr>
<td>C. Does rim contain DOT symbol? (Yes/No)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>D. Manufacturer’s name, symbol or trademark (copy format)</td>
<td>TOPY</td>
<td></td>
</tr>
<tr>
<td>E. Date of manufacture or symbol (copy format)</td>
<td>11 22 10</td>
<td></td>
</tr>
<tr>
<td>F. Letter height (not less than 3 mm)</td>
<td>6 mm</td>
<td></td>
</tr>
<tr>
<td>G. Lettering (impressed or embossed)</td>
<td>Impressed</td>
<td></td>
</tr>
<tr>
<td>H. Are all rim markings legible? (Yes/No)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Do items A-C appear on weather side of rim (Yes/No)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Do all markings comply with requirements (Yes/No)</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rim Measurements</th>
<th>RIGHT FRONT</th>
<th>LEFT REAR (if different)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rim width</td>
<td>19.1 cm (7.5 in)</td>
<td></td>
</tr>
<tr>
<td>Rim diameter</td>
<td>43.2 cm (17 in)</td>
<td></td>
</tr>
<tr>
<td>Rim measurements same as rim markings?</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

Rims are suitable for tires on vehicle? (X)YES ( ) NO

Reference source used for tire/rim match verification:
2010 Tire and Rim Association Yearbook

DATA INDICATES COMPLIANCE: PASS/FAIL: PASS

REMARKS: None

RECORDED BY: Todd P. Groghan DATE: April 7, 2011

APPROVED BY: Kenneth H. Yates
DATA SHEET 4 (1 of 3)
VEHICLE PLACARD AND TIRE INFLATION PRESSURE LABEL

VEHICLE MAKE/MODEL/BODY STYLE: 2011 Ford F150 truck

VEHICLE NHTSA NUMBER: CB0201 VIN: 1FTMF1CM4BFA50176

LABORATORY: U.S. DOT San Angelo Test Facility TEST DATE: April 7, 2011

Identification of Vehicle Labeling

<table>
<thead>
<tr>
<th>(Yes/No)</th>
<th>Location</th>
<th>PASS/FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Certification Label*</td>
<td>Yes</td>
<td>Driver’s side door edge</td>
</tr>
<tr>
<td>2. Vehicle Placard*</td>
<td>Yes</td>
<td>Driver’s door opening</td>
</tr>
<tr>
<td>3. Tire Inflation Pressure Label*</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

* Labels must be located as specified in section 12.4 of test procedure.

Vehicle Placard

Vehicle Placard has the exact color and format as specified in the above Figure 1 and text is in English language. ( X ) YES (   ) NO

Vehicle Placard and, if provided, Tire Inflation Pressure Label are permanently affixed. ( X ) YES (   ) NO
Vehicle Placard Information:

Combined weight of occupants and cargo \( 779 \) kg \((1,718 \text{ lbs})\)

Seating Capacity: Total 3 ; Front 3 ; Rear 0

Is the number of belted seating positions the same as the labeled seating capacity? (X) YES ( ) NO

Is the tire size and pressure provided? (X) YES ( ) NO

Vehicle Certification Label information:

<table>
<thead>
<tr>
<th>Tire Size</th>
<th>Rim Size Designation</th>
<th>Rim Suitable for Tire?*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Axle</td>
<td>P235/75R17</td>
<td>17x7¾J</td>
</tr>
<tr>
<td>Rear Axle</td>
<td>P235/75R17</td>
<td>17x7¾J</td>
</tr>
</tbody>
</table>

*Referenced source used for tire/rim match verification:

2010 Tire and Rim Association Yearbook
DATA SHEET 4 (3 of 3)
VEHICLE PLACARD AND TIRE INFLATION PRESSURE LABEL

Is (Are) tire size(s) listed on the vehicle placard and/or tire inflation pressure label also listed on the certification label with suitable rim size?  ( X ) YES ( ) NO

<table>
<thead>
<tr>
<th>LABELED TIRE CAPACITY AT SPECIFIED PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GVWR 2,926 kg (6,450 lbs)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>A. GAWR from certification label</td>
</tr>
<tr>
<td>B. Tire load rating of labeled tire size at labeled inflation pressure*</td>
</tr>
<tr>
<td>C. Reduced tire load rating if applicable**</td>
</tr>
<tr>
<td>D. (No. of tires) x (Tire load rating de-rated if appropriate )</td>
</tr>
</tbody>
</table>

Is “D” equal to or greater than “A”?: Yes

*Reference source used for determining load rating:
2010 Tire and Rim Association Yearbook

** If a passenger car tire is installed on a multipurpose passenger vehicle (TRUCK), truck or bus, the tire’s load rating is reduced by dividing by 1.10.

DATA INDICATES COMPLIANCE: PASS/FAIL: PASS

REMARKS: Ratings above are taken from 2010 Tire and Rim Association Yearbook for P235/75R17 Tires at 240 kPa, since no ratings are published for higher inflation pressures.

RECORDED BY: Todd P. Groghan  DATE: April 7, 2011
APPROVED BY: Kenneth H. Yates
VEHICLE MAKE/MODEL/BODY STYLE: 2011 Ford F150 truck

VEHICLE NHTSA NUMBER: CB0201 VIN: 1FTMF1CM4BFA50176

LABORATORY: U.S. DOT San Angelo Test Facility TEST DATE: April 7, 2011

Full Fluid Levels: Fuel Full Coolant Full Other Fluids* Full
* Power steering, power brake, transmission, windshield washer, and rear differential

Tire Pressures: LF 260 kPa (38 psi) LR 260 kPa (38 psi)
(cold, prior to loading vehicle) RF 260 kPa (38 psi) RR 260 kPa (38 psi)

A. MEASURED CURB WEIGHT WITH INSTALLED OPTIONS AND ACCESSORIES

Measured Unloaded Vehicle Weight

<table>
<thead>
<tr>
<th></th>
<th>LF 604 kg (1,331 lb)</th>
<th>LR 464 kg (1,023 lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RF 589 kg (1,299 lb)</td>
<td>RR 460 kg (1,015 lb)</td>
</tr>
<tr>
<td>Front Axle</td>
<td>1,193 kg (2,630 lb)</td>
<td>Rear Axle 924 kg (2,038 lb)</td>
</tr>
<tr>
<td>Total Vehicle Weight</td>
<td>2,117 kg (4,668 lb)</td>
<td></td>
</tr>
</tbody>
</table>
B. MEASURED VEHICLE NORMAL LOAD WEIGHT

(1) Seating Capacity from Vehicle Placard = 3

(2) Normal Load Number of Occupants = 2

Occupant Distribution: Front Seat 2, Rear N/A

(3) Total Normal Occupant Load = 136 kg (300 lb)

[# of occupants x 68 KG per occupant]

(4) Measured Normal Load on Axles

<table>
<thead>
<tr>
<th></th>
<th>LF</th>
<th>LR</th>
<th>RF</th>
<th>RR</th>
<th>Front Axle</th>
<th>Rear Axle</th>
<th>Total Vehicle Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>641 kg (1,414 lb)</td>
<td>494 kg (1,088 lb)</td>
<td>627 kg (1,383 lb)</td>
<td>491 kg (1,083 lb)</td>
<td>1,268 kg (2,797 lb)</td>
<td>985 kg (2,171 lb)</td>
<td>2,253 kg (4,968 lb)</td>
</tr>
</tbody>
</table>
(5) Calculated Vehicle Normal Load on the Tire

Front Tires \([\text{measured front axle normal load}/2]\) = 635 kg (1,399 lbs)
Rear Tires \([\text{measured rear axle normal load}/2]\) = 493 kg (1,086 lbs)

(6) Measured Normal Load on Tire vs. Value of 94% of Load Rating for that Tire at Specified Pressure

<table>
<thead>
<tr>
<th>A. Calculated Vehicle Normal Load on the Tire from (5)</th>
<th>FRONT AXLE</th>
<th>REAR AXLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>635 kg (1,399 lbs)</td>
<td>493 kg (1,086 lbs)</td>
<td></td>
</tr>
</tbody>
</table>

| B. Tire load rating of installed tire size at recommended inflation pressure* | 1,000 kg (2,205 lbs) | 1,000 kg (2,205 lbs) |
| C. Adjusted Load Rating | 909 kg (2,005 lbs) | 909 kg (2,005 lbs) |
| D. 94% of tire load rating, (de-rated if appropriate)** | 855 kg (1,885 lbs) | 855 kg (1,885 lbs) |

| Is “D” equal to or greater than “A”? | Yes | Yes |

*Reference source used for tire/rim match verification:
2010 Tire and Rim Association Yearbook

** If a passenger car tire is installed on a multipurpose passenger vehicle (TRUCK), truck or bus, the tire’s load rating is reduced by dividing by 1.10.

Vehicle Normal Load on the tire is not greater than 94% of the Recommended Cold Inflation Load Rating.

| Front Tires | PASS |
| Rear Tires | PASS |
C. MEASURED VEHICLE WEIGHT WITH FULL OCCUPANT LOAD

Seating Capacity:  Total 3;  Front 3;  Rear N/A

Full Occupant Load 204 kg (450 lbs)
[ # of occupants x 68 KG per adult occupant and 54 KG per student occupant]

LF  659 kg (1,453 lb)  LR  509 kg (1,122 lb)
RF  646 kg (1,425 lb)  RR  507 kg (1,118 lb)
Front Axle  1,305 kg (2,878 lb)  Rear Axle  1,016 kg (2,240 lb)
Total Vehicle Weight  2,321 kg (5,118 lb)

D. MEASURED MAXIMUM VEHICLE LOAD WEIGHT

(1) Vehicle Capacity Weight (from placard)  779 kg (1,718 lbs)
(2) Full Occupant Load (from above)  204 kg (450 lbs)
(3) Luggage/Cargo Load (subtract (2) from (1))  575 kg (1,268 lbs)
(4) Measured Vehicle Maximum Load on Axles

LF  669 kg (1,475 lb)  LR  789 kg (1,739 lb)
RF  657 kg (1,448 lb)  RR  782 kg (1,724 lb)
Front Axle  1,326 kg (2,923 lb)  Rear Axle  1,571 kg (3,463 lb)
Total Vehicle Weight  2,897 kg (6,386 lb)
DATA SHEET 5 (5 of 6)
VEHICLE WEIGHT DISTRIBUTION

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Tire or Vehicle Rating*</th>
<th>Unloaded Vehicle Weight</th>
<th>Vehicle Weight with Normal Occupant Load</th>
<th>Vehicle Weight with Full Occupant Load</th>
<th>Vehicle Maximum Weight with Occupants and Cargo</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Measured</td>
<td>Over-load</td>
<td>Measured</td>
<td>Over-load</td>
</tr>
<tr>
<td>Left Front Tire</td>
<td>909 kg (2,005 lbs)</td>
<td>604 kg</td>
<td>no</td>
<td>641 kg</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1,331 lbs)</td>
<td></td>
<td>(1,414 lbs)</td>
<td></td>
</tr>
<tr>
<td>Right Front Tire</td>
<td>909 kg (2,005 lbs)</td>
<td>589 kg</td>
<td>no</td>
<td>627 kg</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1,299 lbs)</td>
<td></td>
<td>(1,383 lbs)</td>
<td></td>
</tr>
<tr>
<td>Front Axle (GAWR)</td>
<td>1,361 kg (3,000 lbs)</td>
<td>1,193 kg</td>
<td>no</td>
<td>1,268 kg</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2,630 lbs)</td>
<td></td>
<td>(2,797 lbs)</td>
<td></td>
</tr>
<tr>
<td>Left Rear Tire</td>
<td>909 kg (2,005 lbs)</td>
<td>464 kg</td>
<td>no</td>
<td>494 kg</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1,023 lbs)</td>
<td></td>
<td>(1,088 lbs)</td>
<td></td>
</tr>
<tr>
<td>Right Rear Tire</td>
<td>909 kg (2,005 lbs)</td>
<td>460 kg</td>
<td>no</td>
<td>491 kg</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1,015 lbs)</td>
<td></td>
<td>(1,083 lbs)</td>
<td></td>
</tr>
<tr>
<td>Rear Axle (GAWR)</td>
<td>1,588 kg (3,500 lbs)</td>
<td>924 kg</td>
<td>no</td>
<td>985 kg</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2,038 lbs)</td>
<td></td>
<td>(2,171 lbs)</td>
<td></td>
</tr>
<tr>
<td>Total Vehicle (GVWR)</td>
<td>2,926 kg (6,450 lbs)</td>
<td>2,117 kg</td>
<td>no</td>
<td>2,253 kg</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4,668 lbs)</td>
<td></td>
<td>(4,968 lbs)</td>
<td></td>
</tr>
</tbody>
</table>

*Vehicle and axle weight ratings (GVWR & GAWR) are located on the vehicle certification label. Vehicle tire load ratings are based upon the inflation pressure specified on the vehicle placard or tire inflation pressure label for each respective axle, as determined from the appropriate Tire and Rim Association reference manual. If a passenger car tire is installed on a multipurpose passenger vehicle (TRUCK), truck, or bus, the tire's load rating is reduced by dividing by 1.10.

DATA INDICATES COMPLIANCE: PASS

PASS/FAIL:  PASS

REMARKS:  None

RECORDED BY:  Todd P. Groghan  DATE:  April 7, 2011

APPROVED BY:  Kenneth H. Yates
Owner’s Manual Discusses:

<table>
<thead>
<tr>
<th>Part 575.6(a) Paragraph</th>
<th>Required Discussion Topic</th>
<th>Discussed in Manual? (YES/NO)</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>(4)(i)</td>
<td>Tire labeling, including a description and explanation of each marking on the tires provided with the vehicle, and information about the location of the Tire Identification Number (TIN).</td>
<td>YES</td>
<td>234, 238 - 241</td>
</tr>
<tr>
<td>(4)(ii)</td>
<td>(A) Description and explanation of recommended cold tire inflation pressure.</td>
<td>YES</td>
<td>230</td>
</tr>
<tr>
<td></td>
<td>(B) Description and explanation of FMVSS 110 Vehicle Placard and Tire Inflation Pressure Label and their location(s).</td>
<td>YES</td>
<td>243, 253</td>
</tr>
<tr>
<td></td>
<td>(C) Description and explanation of adverse safety consequences of under-inflation including tire failure.</td>
<td>YES</td>
<td>231</td>
</tr>
<tr>
<td></td>
<td>(D) Description and explanation for measuring and adjusting air pressure to achieve proper inflation.</td>
<td>YES</td>
<td>231, 232</td>
</tr>
<tr>
<td>(4)(iii)</td>
<td>Glossary of tire terminology, including &quot;cold tire pressure,&quot; maximum inflation pressure,&quot; and &quot;recommended inflation pressure,&quot; and all non-technical terms defined in S3 of FMVSS 110 &amp; 139.</td>
<td>YES</td>
<td>230</td>
</tr>
<tr>
<td>(4)(iv)</td>
<td>Tire care, including maintenance and safety practices.</td>
<td>YES</td>
<td>233, 234</td>
</tr>
<tr>
<td>(4)(v)</td>
<td>(A) Description and explanation of locating and understanding load limit information, total load capacity, seating capacity, towing capacity, and cargo capacity.</td>
<td>YES</td>
<td>251 - 259</td>
</tr>
<tr>
<td></td>
<td>(B) Description and explanation for calculating total and cargo load capacities with varying seating configurations including quantitative examples showing/illustrating how the vehicle’s cargo and luggage capacity decreases as the combined number and size of occupants increases.</td>
<td>YES</td>
<td>251 - 259</td>
</tr>
<tr>
<td></td>
<td>(C) Description and explanation for determining compatibility of tire and vehicle load capabilities.</td>
<td>YES</td>
<td>235, 256</td>
</tr>
<tr>
<td></td>
<td>(D) Description and explanation of adverse safety consequences of overloading on handling and stopping and on tires.</td>
<td>YES</td>
<td>252, 255</td>
</tr>
</tbody>
</table>
Steps for Determining Correct Load Limit

1. Locate the statement “The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs.” on your vehicle’s placard.
2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.
4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the “XXX” amount equals 1400 lbs. and there will be five 150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (1400-750 (5x150) = 650 lbs.)
5. Determine the combined weight of the luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

DATA INDICATES COMPLIANCE:  PASS/FAIL:  PASS

REMARKS:  None

RECORDED BY:  Todd P. Groghan           DATE:  April 7, 2011
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>AIR PRESSURE GAUGE</td>
<td>ASHCROFT GENERAL PURPOSE DIGITAL GAUGE</td>
<td>MODEL #D1005PS 02L 100 PSI SERIAL #20017398-01</td>
<td>12/17/10</td>
<td>12/17/2011</td>
</tr>
<tr>
<td>FLOOR SCALES (VEHICLE)</td>
<td>INTERCOMP SW DELUXE SCALES</td>
<td>PART #100156 SERIAL #27032382</td>
<td>7/21/2010</td>
<td>7/21/2011</td>
</tr>
</tbody>
</table>
SECTION 5
PHOTOGRAPHS
2011 FORD F150
NHTSA NO. CB0201
FMVSS NO. 110

FIGURE 5.1
¾ FRONT VIEW FROM LEFT SIDE OF VEHICLE
Figure 5.2

2011 FORD F150
NHTSA NO. CB0201
FMVSS NO. 110

3/4 rear view from right side of vehicle
DATE: 12/10
FRONT GAWR: 3000LB
1361KG
P235/75R17 108S
17x7.5J
AT 260 kPa/ 38 PSI COLD

GVWR: 6450LB/ 2926KG
REAR GAWR: 3500LB
WITH 1588KG
TIRES P235/75R17 108S
RIMS 17x7.5J
AT 260 kPa/ 38 PSI COLD

MFD. BY FORD MOTOR CO.

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR
VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF
MANUFACTURE ShOWN Above.

VIN: 1FTMF1CM4BFA50176
TYPE: Truck

EXT PNT: UJ
WB 126
INT TR CS
TP/PS 7
R AXLE 19
TR SPR 6
BF617 NNEE BOA
2201012141770 UTC △5U5A-1520472-BA

FIGURE 5.3
VEHICLE CERTIFICATION LABEL
<table>
<thead>
<tr>
<th>TIRE</th>
<th>SIZE</th>
<th>COLD TIRE PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRONT</td>
<td>P235/75R17 108S</td>
<td>260 KPA, 38 PSI</td>
</tr>
<tr>
<td>REAR</td>
<td>P235/75R17 108S</td>
<td>260 KPA, 38 PSI</td>
</tr>
<tr>
<td>SPARE</td>
<td>P235/75R17 108S</td>
<td>260 KPA, 38 PSI</td>
</tr>
</tbody>
</table>

The combined weight of occupants and cargo should never exceed: 779 kg or 1718 lbs.

NHTSA NO. CB0201
FMVSS NO.110

2011 FORD F150

FIGURE 5.4
VEHICLE PLACARD
FIGURE 5.7
TIRE SHOWING SIZE, LOAD INDEX, AND SPEED SYMBOL
U.S.A. CANADA AUSTRALIA CODES ONLY
MAX. LOAD 1000 kg (2205 LBS) AT
300 kPa (44 PSI) MAX. PRESS.
FIGURE 5.9
TIRE SHOWING SERIAL NUMBER

2011 FORD F150
NHTSA NO. CB0201
FMVSS NO. 110
RIM MARKINGS INCLUDING LETTER DESIGNATION FOR SOURCE OF PUBLISHED DIMENSIONS, SIZE, DOT SYMBOL, MANUFACTURER’S SYMBOL, MANUFACTURE DATE, AND OTHER RIM MARKINGS
FIGURE 5.11
ADDITIONAL RIM MARKINGS
FIGURE 5.12
RIM CONTOUR FOR FULL WIDTH OF CROSS SECTION
2011 FORD F150
NHTSA NO. CB0201
FMVSS NO. 110

FIGURE 5.14
VEHICLE SEAT BALLASTED
FOR FULL AND MAXIMUM LOADS
2011 FORD F150
NHTSA NO. CB0201
FMVSS NO. 110

FIGURE 5.15
VEHICLE CARGO AREA BALLASTED FOR MAXIMUM LOAD
FIGURE 5.16
VEHICLE ON WEIGHT SCALES