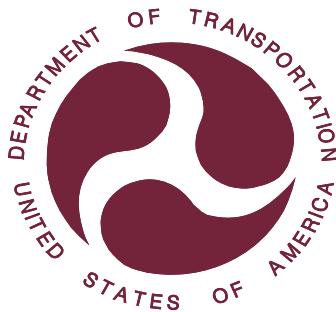


REPORT NUMBER 110-STF-11-004

# 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  
1200 NEW JERSEY AVENUE, SE  
WASHINGTON, D.C. 20590

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SECTION 1  
INTRODUCTION

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



## DATA SUMMARY SHEET (2 of 2)

### **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:**

<input checked="" type="checkbox"/>	Air Conditioning	<input checked="" type="checkbox"/>	Traction Control	<input checked="" type="checkbox"/>	Clock
<input checked="" type="checkbox"/>	Tinted Glass	<input checked="" type="checkbox"/>	Tachometer	<input type="checkbox"/>	Roof Rack
<input checked="" type="checkbox"/>	Power Steering	<input type="checkbox"/>	Cruise Control	<input type="checkbox"/>	Console
<input type="checkbox"/>	Power Windows	<input type="checkbox"/>	Rear Window Defroster	<input checked="" type="checkbox"/>	Driver Air Bag
<input type="checkbox"/>	Power Door Locks	<input type="checkbox"/>	Sun Roof or T-Top	<input checked="" type="checkbox"/>	Passenger Air Bag
<input type="checkbox"/>	Power Seat(s)	<input checked="" type="checkbox"/>	Tilt Steering Wheel	<input checked="" type="checkbox"/>	Side Curtain Air Bag(s)
<input checked="" type="checkbox"/>	Power Brakes	<input checked="" type="checkbox"/>	Stereo	<input checked="" type="checkbox"/>	Front Disc Brakes
<input checked="" type="checkbox"/>	Antilock Brake System	<input type="checkbox"/>	Telephone	<input checked="" type="checkbox"/>	Rear Disc Brakes
<input type="checkbox"/>	Navigation System	<input type="checkbox"/>	Trailer Hitch	<input type="checkbox"/>	Other -

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:  YES ( ) NO

All tires on the vehicle (excluding the spare) are the same size:  YES ( ) NO

Spare tire is the same size as all other tires:  YES ( ) NO

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

Serial Number: Right Front T79JPCYH3710 Left Front T79JPCYH3710

Right Rear T79JPCYH3710 Left Rear T79JPCYH3510

Spare T79JPCYH3710

**DATA SHEET 2 (2 of 2)**  
**VEHICLE TIRE IDENTIFICATION AND LOAD LIMITS**

MOUNTED TIRE VS. AXLE RATING COMPARISON (at sidewall maximum inflation pressure)		
	FRONT AXLE	REAR AXLE
A. GAWR from certification label	1,361 kg (3,000 lbs)	1,588 kg (3,500 lbs)
B. Tire Maximum Load Rating from above	1,000 kg (2,205 lbs)	1,000 kg (2,205 lbs)
C. Reduced tire load rating if applicable*	909 kg (2,005 lbs)	909 kg (2,005 lbs)
D. (No. of tires) x (Tire load rating de-rated if appropriate )	1,818 kg (4,010 lbs)	1,818 kg (4,010 lbs)
Is "D" equal to or greater than "A"? (Yes/No)	Yes	Yes

\* 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

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

<b>Rim Measurements</b>	<b>RIGHT FRONT</b>	<b>LEFT REAR (If different)</b>
Rim width	19.1 cm (7.5 in)	
Rim diameter	43.2 cm (17 in)	
Rim measurements same as rim markings?	Yes	

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

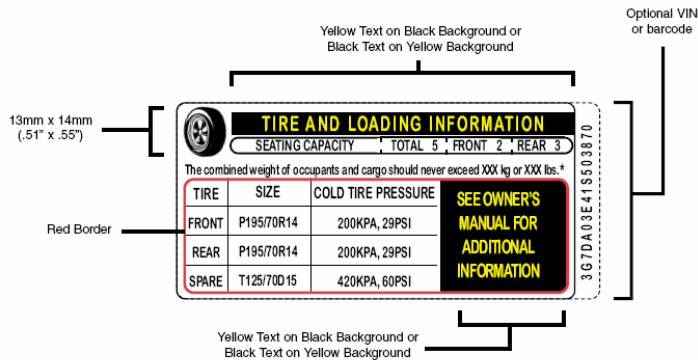
LABORATORY: U.S. DOT San Angelo Test Facility TEST DATE: April 7, 2011

**Identification of Vehicle Labeling**

	(Yes/No)	Location	PASS/FAIL
1. Certification Label*	<u>Yes</u>	<u>Driver's side door edge</u>	<u>PASS</u>
2. Vehicle Placard*	<u>Yes</u>	<u>Driver's door opening</u>	<u>PASS</u>
3. Tire Inflation Pressure Label*	<u>No</u>	<u></u>	<u></u>

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

**Vehicle Placard**



**FIGURE 1**  
**(70 FR 14425)**

**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

**DATA SHEET 4 (2 of 3)**  
**VEHICLE PLACARD AND TIRE INFLATION PRESSURE LABEL**

**Vehicle Placard Information:**

Combined weight of occupants and cargo 779 kg (1,718 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

**Tire Information:**

Tire Size: Front P235/75R17 ; Rear P235/75R17

Tire Inflation Pressure: Front 260 kPa (38 psi) ; Rear 260 kPa (38 psi)

Are the sizes of the installed tires the same as the sizes of the labeled tires? ( X ) YES ( ) NO

Is the labeled cold tire inflation pressure equal to or less than the sidewall labeled maximum cold tire inflation pressure?

Front axle: ( X ) YES ( ) NO Rear axle: ( X ) YES ( ) NO

**Vehicle Certification Label information:**

	Tire Size	Rim Size Designation	Rim Suitable for Tire?*
Front Axle	<u>P235/75R17</u>	<u>17x7½J</u>	<u>Yes</u>
Rear Axle	<u>P235/75R17</u>	<u>17x7½J</u>	<u>Yes</u>

\*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

LABELED TIRE CAPACITY AT SPECIFIED PRESSURE		
GVWR <u>2,926 kg (6,450 lbs)</u>	FRONT AXLE	REAR AXLE
A. GAWR from certification label	1,361 kg (3,000 lbs)	1,588 kg (3,500 lbs)
B. Tire load rating of labeled tire size at labeled inflation pressure*	1,000 kg (2,205 lbs)	1,000 kg (2,205 lbs)
C. Reduced tire load rating if applicable**	909 kg (2,005 lbs)	909 kg (2,005 lbs)
D. (No. of tires) x (Tire load rating de-rated if appropriate )	1,818 kg (4,010 lbs)	1,818 kg (4,010 lbs)
Is "D" equal to or greater than "A"?	Yes	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



**DATA SHEET 5 (1 of 6)**  
**CURB WEIGHT, NORMAL AND FULL LOADS WEIGHT & MAXIMUM VEHICLE WEIGHT**

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

LF	<u>604 kg (1,331 lb)</u>	LR	<u>464 kg (1,023 lb)</u>
RF	<u>589 kg (1,299 lb)</u>	RR	<u>460 kg (1,015 lb)</u>
Front Axle	<u>1,193 kg (2,630 lb)</u>	Rear Axle	<u>924 kg (2,038 lb)</u>
Total Vehicle Weight		<u>2,117 kg (4,668 lb)</u>	

**DATA SHEET 5 (2 of 6)**  
**CURB WEIGHT, NORMAL AND FULL LOADS WEIGHT & MAXIMUM VEHICLE WEIGHT**

**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

LF 641 kg (1,414 lb) LR 494 kg (1,088 lb)

RF 627 kg (1,383 lb) RR 491 kg (1,083 lb)

Front Axle 1,268 kg (2,797 lb) Rear Axle 985 kg (2,171 lb)

Total Vehicle Weight 2,253 kg (4,968 lb)

**DATA SHEET 5 (3 of 6)**  
**CURB WEIGHT, NORMAL AND FULL LOADS WEIGHT & MAXIMUM VEHICLE WEIGHT**

(5) Calculated Vehicle Normal Load on the Tire

Front Tires [measured front axle normal load/2] = 635 kg (1,399 lbs)

Rear Tires [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

MEASURED NORMAL LOAD ON TIRE VS. VALUE OF 94% OF LOAD RATING FOR THAT TIRE AT SPECIFIED PRESSURE		
	FRONT AXLE	REAR AXLE
A. Calculated Vehicle Normal Load on the Tire from (5)	635 kg (1,399 lbs)	493 kg (1,086 lbs)
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.

PASS/FAIL

Front Tires

PASS

Rear Tires

PASS

**DATA SHEET 5 (4 of 6)**  
**CURB WEIGHT, NORMAL AND FULL LOADS WEIGHT & MAXIMUM VEHICLE WEIGHT**

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

**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	<u>669 kg (1,475 lb)</u>	LR	<u>789 kg (1,739 lb)</u>
RF	<u>657 kg (1,448 lb)</u>	RR	<u>782 kg (1,724 lb)</u>
Front Axle	<u>1,326 kg (2,923 lb)</u>	Rear Axle	<u>1,571 kg (3,463 lb)</u>
Total Vehicle Weight <u>2,897 kg (6,386 lb)</u>			

**DATA SHEET 5 (5 of 6)**  
**VEHICLE WEIGHT DISTRIBUTION**

ITEM	Tire or Vehicle Rating*	Unloaded Vehicle Weight		Vehicle Weight with Normal Occupant Load		Vehicle Weight with Full Occupant Load		Vehicle Maximum Weight with Occupants and Cargo	
		Measured	Over-load	Measured	Over-load	Measured	Over-load	Measured	Over-load
Left Front Tire	909 kg (2,005 lbs)	604 kg (1,331 lbs)	no	641 kg (1,414 lbs)	no	659 kg (1,453 lbs)	no	669 kg (1,475 lbs)	no
Right Front Tire	909 kg (2,005 lbs)	589 kg (1,299 lbs)	no	627 kg (1,383 lbs)	no	646 kg (1,425 lbs)	no	657 kg (1,448 lbs)	no
Front Axle (GAWR)	1,361 kg (3,000 lbs)	1,193 kg (2,630 lbs)	no	1,268 kg (2,797 lbs)	no	1,305 kg (2,878 lbs)	no	1,326 kg (2,923 lbs)	no
Left Rear Tire	909 kg (2,005 lbs)	464 kg (1,023 lbs)	no	494 kg (1,088 lbs)	no	509 kg (1,122 lbs)	no	789 kg (1,739 lbs)	no
Right Rear Tire	909 kg (2,005 lbs)	460 kg (1,015 lbs)	no	491 kg (1,083 lbs)	no	507 kg (1,118 lbs)	no	782 kg (1,724 lbs)	no
Rear Axle (GAWR)	1,588 kg (3,500 lbs)	924 kg (2,038 lbs)	no	985 kg (2,171 lbs)	no	1,016 kg (2,240 lbs)	no	1,571 kg (3,463 lbs)	no
Total Vehicle (GVWR)	2,926 kg (6,450 lbs)	2,117 kg (4,668 lbs)	no	2,253 kg (4,968 lbs)	no	2,321 kg (5,118 lbs)	no	2,897 kg (6,386 lbs)	no

\*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/FAIL: PASS

REMARKS: None

RECORDED BY: Todd P. Groghan

DATE: April 7, 2011

APPROVED BY: Kenneth H. Yates

**DATA SHEET 6 (1 of 2)**  
**OWNER'S MANUAL REQUIREMENTS**

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

VEHICLE NHTSA NO. CB0201 VIN: 1FTMF1CM4BFA50176

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

**Owner's Manual Discusses:**

<b>Part 575.6(a) Paragraph</b>	<b>Required Discussion Topic</b>	<b>Discussed in Manual? (YES/NO)</b>	<b>Page Numbers</b>
(4)(i)	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).	YES	234, 238 - 241
(4)(ii)	(A) Description and explanation of recommended cold tire inflation pressure.	YES	230
	(B) Description and explanation of FMVSS 110 Vehicle Placard and Tire Inflation Pressure Label and their location(s).	YES	243, 253
	(C) Description and explanation of adverse safety consequences of under-inflation including tire failure.	YES	231
	(D) Description and explanation for measuring and adjusting air pressure to achieve proper inflation.	YES	231, 232
(4)(iii)	Glossary of tire terminology, including "cold tire pressure," maximum inflation pressure," and "recommended inflation pressure," and all non-technical terms defined in S3 of FMVSS 110 & 139.	YES	230
(4)(iv)	Tire care, including maintenance and safety practices.	YES	233, 234
(4)(v)	(A) Description and explanation of locating and understanding load limit information, total load capacity, seating capacity, towing capacity, and cargo capacity.	YES	251 - 259
	(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.	YES	251 - 259
	(C) Description and explanation for determining compatibility of tire and vehicle load capabilities.	YES	235, 256
	(D) Description and explanation of adverse safety consequences of overloading on handling and stopping and on tires.	YES	252, 255

**DATA SHEET 6 (2 of 2)**  
**OWNER'S MANUAL REQUIREMENTS**

The following statement, in the English language, is provided verbatim in the Owner's Manual. Reference Part 575.6(a)(5)                      YES ( X )      NO ( )

**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

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RECORDED BY: Todd P. Groghan

DATE: April 7, 2011

APPROVED BY: Kenneth H. Yates

## SECTION 4

## TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

<b>EQUIPMENT</b>	<b>DESCRIPTION</b>	<b>MODEL/ SERIAL NO</b>	<b>CAL. DATE</b>	<b>NEXT CAL. DATE</b>
AIR PRESSURE GAUGE	ASHCROFT GENERAL PURPOSE DIGITAL GAUGE	MODEL #D1005PS 02L 100 PSI SERIAL #20017398- 01	12/17/10	12/17/2011
FLOOR SCALES (VEHICLE)	INTERCOMP SW DELUXE SCALES	PART #100156 SERIAL #27032382	7/21/2010	7/21/2011



SECTION 5  
PHOTOGRAPHS



2011 FORD F150  
NHTSA NO. CB0201  
FMVSS NO. 110

FIGURE 5.1  
¾ FRONT VIEW FROM LEFT SIDE OF VEHICLE



2011 FORD F150  
NHTSA NO. CB0201  
FMVSS NO. 110

FIGURE 5.2  
¾ REAR VIEW FROM RIGHT SIDE OF VEHICLE

# MFD. BY FORD MOTOR CO.

DATE: 12/10

GVWR: 6450LB/ 2926KG

FRONT GAWR: 3000LB

REAR GAWR: 3500LB

1361KG

WITH 1588KG

WITH

P235/75R17 108S

TIRES P235/75R17 108S

TIRES

17x7.5J

RIMS 17x7.5J

RIMS

AT 260 kPa/ 38

PSI COLD

AT 260 kPa/ 38

PSI COLD

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

VIN: 1FTMF1CM4BFA50176

F0068

TYPE: Truck

T0416



EXT PNT:

UJ

RC: 52

DSO:

WB

INT TR

TP/PS

R

AXLE

TR

SPR

BF617

126

CS

7

19

6

NNEE

BOA

2201012141770

UTC

▽5U5A-1520472-BA



# TIRE AND LOADING INFORMATION

SEATING CAPACITY TOTAL : 3 FRONT: 3 REAR: 0

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

▽5U5A-1532-AA (TLU)

TIRE	SIZE	COLD TIRE PRESSURE
FRONT	P235/75R17 108S	260 KPA, 38 PSI
REAR	P235/75R17 108S	260 KPA, 38 PSI
SPARE	P235/75R17 108S	260 KPA, 38 PSI

**SEE OWNERS  
MANUAL FOR  
ADDITIONAL  
INFORMATION**

1FTMF1GM4BFA50176





2011 FORD F150  
NHTSA NO. CB0201  
FMVSS NO. 110

FIGURE 5.5  
TIRE SHOWING BRAND



2011 FORD F150  
NHTSA NO. CB0201  
FMVSS NO. 110

FIGURE 5.6  
TIRE SHOWING MODEL



2011 FORD F150  
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FIGURE 5.7  
TIRE SHOWING SIZE, LOAD INDEX, AND SPEED SYMBOL





2011 FORD F150  
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FIGURE 5.8  
TIRE SHOWING MAX LOAD RATING AND MAX INFLATION PRESSURE



2011 FORD F150  
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FMVSS NO. 110

FIGURE 5.9  
TIRE SHOWING SERIAL NUMBER



2011 FORD F150  
NHTSA NO. CB0201  
FMVSS NO. 110

FIGURE 5.10  
RIM MARKINGS INCLUDING LETTER DESIGNATION FOR SOURCE OF PUBLISHED DIMENSIONS,  
SIZE, DOT SYMBOL, MANUFACTURER'S SYMBOL, MANUFACTURE DATE, AND OTHER RIM MARKINGS



2011 FORD F150  
NHTSA NO. CB0201  
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FIGURE 5.11  
ADDITIONAL RIM MARKINGS



2011 FORD F150  
NHTSA NO. CB0201  
FMVSS NO. 110

FIGURE 5.12  
RIM CONTOUR FOR FULL WIDTH OF CROSS SECTION



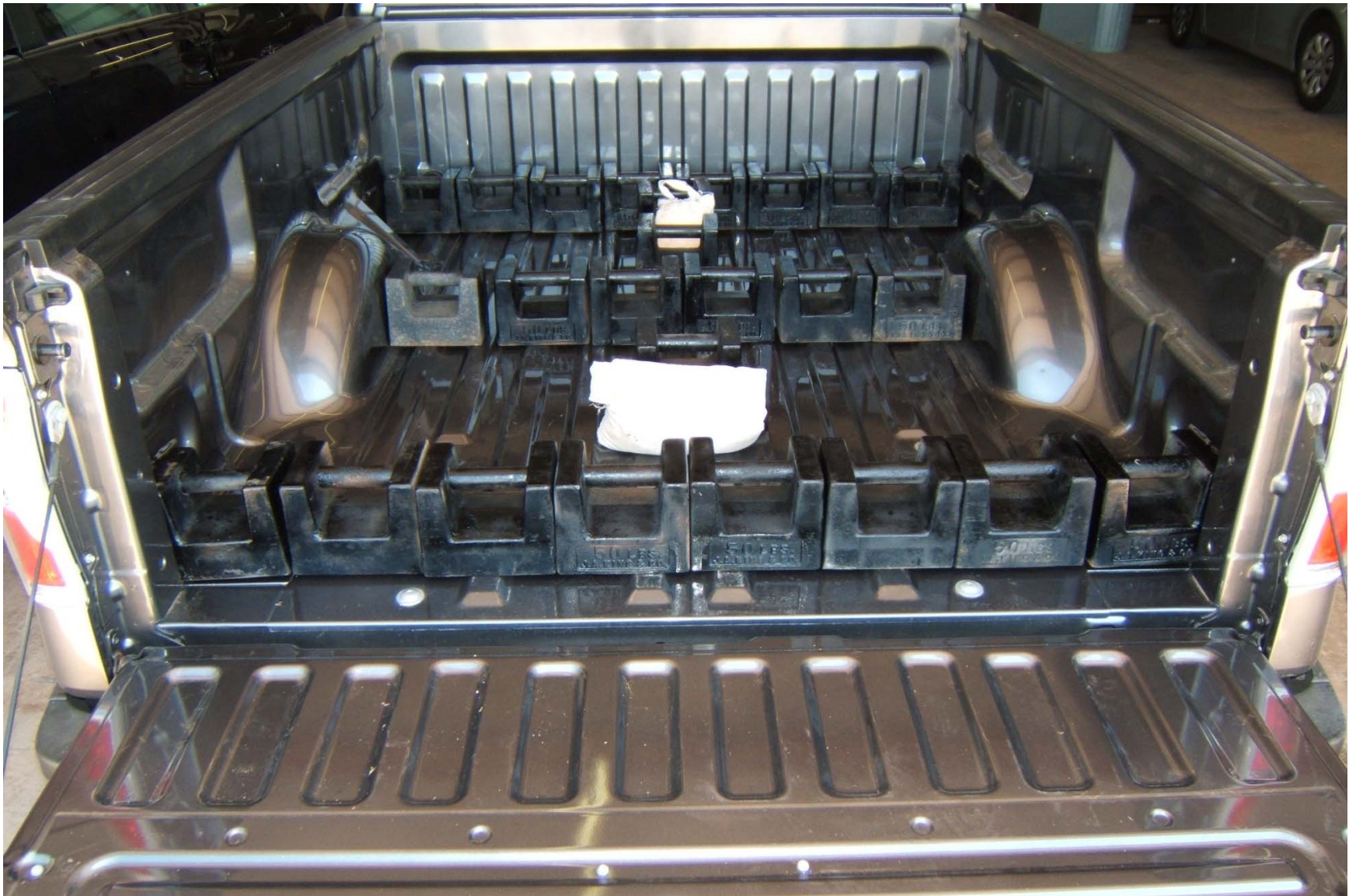
2011 FORD F150  
NHTSA NO. CB0201  
FMVSS NO. 110

FIGURE 5.13  
VEHICLE SEAT BALLASTED  
FOR NORMAL LOAD



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





2011 FORD F150  
NHTSA NO. CB0201  
FMVSS NO. 110

FIGURE 5.16  
VEHICLE ON WEIGHT SCALES