

REPORT NUMBER 110-STF-08-004

# SAFETY COMPLIANCE TESTING FOR FMVSS 110 TIRE SELECTION AND RIMS

TOYOTA MOTOR CORPORATION  
2008 SCION XD  
FIVE-DOOR PASSENGER CAR  
NHTSA NO. C85107

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



August 26, 2008

**FINAL REPORT**

**PREPARED FOR**

**U. S. DEPARTMENT OF TRANSPORTATION  
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION  
ENFORCEMENT  
OFFICE OF VEHICLE SAFETY COMPLIANCE  
1200 NEW JERSEY AVENUE, S.E.  
WEST BUILDING, FOURTH FLOOR, NVS-220  
WASHINGTON, D.C. 20590**

This publication is distributed by the National Highway Traffic Safety Administration in the interest of information exchange. Opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof.

If trade or manufacturers' names or products are mentioned, it is only because they are considered essential to the object of the publication and should not be construed as an endorsement.

Prepared By: Doris Beebe

Approved By: Sam H. Gate

Accepted By: John Finerman

Acceptance Date: 8/26/08

1. Report No. 110-STF-08-004	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle  Final Report of FMVSS 110 Compliance Testing of 2008 Scion xD Five-door Passenger Car, NHTSA No. C85107		5. Report Date August 26, 2008	
		6. Performing Organization Code  STF	
7. Author(s)  Jack R. Stewart, Junior Systems Analyst Kenneth H. Yates, Safety Compliance Engineer		8. Performing Organization Report No.  STF-DOT-08-110-004	
9. Performing Organization Name and Address  U.S. DOT San Angelo Test Facility 131 Comanche Trail, Building 3527 Goodfellow AFB, Texas 76908		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No.	
12. Sponsoring Agency Name and Address  U.S. DOT San Angelo Test Facility 131 Comanche Trail, Building 3527 Goodfellow AFB, Texas 76908		13. Type of Report and Period Covered  Final Test Report June 26 through July 8, 2008	
		14. Sponsoring Agency Code  NVS-220	
15. Supplementary Notes			
16. Abstract Compliance tests were conducted on the subject 2008 Scion xD five-door passenger car in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-110P-03 for the determination of FMVSS 110 compliance. Test failures identified were as follows: NONE.			
17. Key Words  Compliance Testing Safety Engineering FMVSS 110		18. Distribution Statement  Copies of this report are available from:  NHTSA Technical Information Services NPO-411 1200 New Jersey Avenue, S.E. Washington, DC 20590 Email: <a href="mailto:tis@dot.gov">tis@dot.gov</a> FAX: 202-493-2833	
19. Security Classification (of this report)  UNCLASSIFIED	21. Number of Pages  39	22. Price	
20. Security Classification (of this page)  UNCLASSIFIED			

## TABLE OF CONTENTS

SECTION	PAGE
1 Introduction .....	1
2 Test Procedure and Summary of Results .....	2
3 Test Data .....	3
4 Test Equipment List and Calibration Information .....	16
5 Photographs .....	17

### Figure

- 5.1 ¾ Frontal 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 Construction
- 5.9 Tire Showing Max Load Rating and Max Inflation Pressure
- 5.10 Tire Showing Serial Number
- 5.11 Rim Contour for Full Width of Cross Section
- 5.12 Rim Showing Letter Designation for Source of Published Dimensions,  
Size, DOT Symbol, Manufacturer's Symbol, and Date of Manufacture
- 5.13 Rim Markings
- 5.14 Vehicle Front Seat Ballasted for Normal and Maximum Loads
- 5.15 Vehicle Rear Seat Ballasted for Normal Load
- 5.16 Vehicle Rear Seat Ballasted for Maximum Load
- 5.17 Rear of Vehicle Shown Ballasted for Maximum Load
- 5.18 Vehicle on Weight Scales

## SECTION 1

### INTRODUCTION

#### 1.1 PURPOSE OF COMPLIANCE TEST

A 2008 Scion xD five-door passenger car was tested to determine if the vehicle was in compliance with the requirements of FMVSS No. 110. All tests were conducted in accordance with NHTSA, Office of Vehicle Safety Compliance (OVSC) Laboratory Test Procedure TP-110P-03, dated August 31, 2007.

#### 1.2 TEST VEHICLE

The test vehicle was a 2008 Scion xD five-door passenger car. Nomenclatures applicable to the test vehicle are:

A. Vehicle Identification Number: JTKKU10468J015848

B. NHTSA Number: C85107

C. Manufacturer: Toyota Motor Corporation

D. Manufacture Date: 11/2007

#### 1.3 TEST DATE

The test vehicle was tested June 26 through July 8, 2008.

## 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. The right front and left rear wheels were removed from the vehicle. Pertinent information on the tires and rims furnished with the vehicle were recorded and one tire and rim was photographed.

Subsequent events included weighing the vehicle to establish delivered curb weight and the distribution of weight on the front and rear axles and each wheel position. Vehicle was ballasted to Normal Load weight, Full Occupant Load, and Maximum Vehicle Load weight. At each step of the ballasting procedure, data was recorded. Ballast was photographically documented for the Normal and Maximum Vehicle Load weights. The vehicle maximum load on each wheel was measured. The vehicle tire placard was photographed and checked for compliance to location, format, and information requirements. The owner's manual was checked for all required information on placard, tire loading, and general tire and loading parameters.

#### 2.2 SUMMARY OF RESULTS

The data indicate compliance of the Scion xD with all requirements tested.

SECTION 3  
TEST DATA

## DATA SUMMARY SHEET

VEHICLE MAKE/MODEL/BODY STYLE: 2008 Scion xD five-door passenger car

VEHICLE NHTSA NUMBER: C85107 VIN: JTKKU10468J015848

VEHICLE TYPE: five-door passenger car DATE OF MANUFACTURE: 11/2007

LABORATORY: US DOT San Angelo Test Facility

### PASSENGER CAR REQUIREMENTS

**PASS/FAIL**

#### General (Data Sheet 2)

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

PASS

#### Tire Load Limits (Data Sheet 5)

The vehicle maximum load on the tire shall not be greater than the maximum load rating as marked on the sidewall of the tire. (S110, S4.2.1.1)

PASS

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, S4.2.1.2)

PASS

#### Placard and Tire Inflation Pressure Label (Data Sheets 4 and 5)

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

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

PASS

#### Rim (Data Sheet 3)

Each rim is constructed to the dimensions of a rim specified for the application. (S110, S4.4.1(a))

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



**DATA SHEET 1  
TEST VEHICLE INFORMATION/RECEIVING INSPECTION**

VEHICLE MAKE/MODEL/BODY STYLE: 2008 Scion xD five-door passenger car

VEHICLE NHTSA NUMBER: C85107 TEST DATE: June 26, 2008

VIN: JTKKU10468J015848 MANUFACTURE DATE: 11/2007

GVWR: 1,635 kg (3,605 lbs) GAWR(front): 896 kg (1,975 lbs)

GAWR(rear): 826 kg (1,820 lbs)

SEATING POSITIONS: FRONT 2 MID N/A REAR 3

ODOMETER READING AT START OF TEST: 27.4 km (17.0 mi)

ENGINE DATA: 4 Cylinders 1.8 Liters          Cubic Inches

TRANSMISSION DATA: X Automatic          Manual 4 No. of Speeds

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

**INSTALLED VEHICLE EQUIPMENT:**

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

REMARKS: None

RECORDED BY: Jack R. Stewart

DATE: June 26, 2008

APPROVED BY: Kenneth H. Yates

**DATA SHEET 2  
VEHICLE TIRE IDENTIFICATION**

VEHICLE MAKE/MODEL/BODY STYLE: 2008 Scion xD five-door passenger car

VEHICLE NHTSA NUMBER: C85107 VIN: JTKKU10468J015848

LABORATORY: US DOT San Angelo Test Facility TEST DATE: June 26, 2008

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: ( ) YES ( X ) NO

<b>Tire Sidewall</b>	<b>Right Front</b>	<b>Left Rear (If different)</b>	<b>Spare Tire (If different)</b>
Manufacturer and Model	<u>Bridgestone Turanza EL400</u>	<u></u>	<u>Bridgestone Tracomp-3</u>
Tire Size Designation	<u>195/60R16</u>	<u></u>	<u>T135/70D16</u>
Load Index/Speed Symbol	<u>89H</u>	<u></u>	<u></u>
Maximum Inflation Pressure	<u>300 kPa (44 psi)</u>	<u></u>	<u>420 kPa (60 psi)</u>
Maximum Load Rating	<u>580 kg (1,279 lbs)</u>	<u></u>	<u>800 kg (1,764 lb)</u>
Tread/Traction/Temperature	<u>300/A/A</u>	<u></u>	<u>N/A</u>
Tires Have "DOT" Markings	<u>Yes</u>	<u></u>	<u>Yes</u>

Serial Number: Right Front ELWVDLN4307 Left Front ELWVDLN4307

Right Rear ELWVDLN4307 Left Rear ELWVDLN4307

Spare EHJOBEE3807

DATA INDICATES COMPLIANCE: PASS/FAIL: PASS

REMARKS: None

RECORDED BY: Jack R. Stewart

DATE: June 26, 2008

APPROVED BY: Kenneth H. Yates



**DATA SHEET 3  
VEHICLE RIM IDENTIFICATION**

VEHICLE MAKE/MODEL/BODY STYLE: 2008 Scion xD five-door passenger car

VEHICLE NHTSA NUMBER: C85107 VIN: JTKKU10468J015848

LABORATORY: US DOT San Angelo Test Facility TEST DATE: June 26, 2008

**Rim Markings (if available):**

	<b>Right Front</b>	<b>Left Rear</b>
Manufacturer's Name, Symbol or Trademark		
Rim Size	<u>16X6J</u>	<u>16X6J</u>
Date of Manufacture	<u>10 07</u>	<u>10 07</u>
Does Rim contain "DOT" symbol? (YES/NO)	<u>Yes</u>	<u>Yes</u>
Other Rim Markings	<u>See Remarks</u>	<u>See Remarks</u>
Rim Inspection Comments:	<u>None</u>	
Tire Inspection Comments:	<u>None</u>	

<b>Rim Size:</b>	<b>Tire Size</b>	<b>Measured Rim Width</b>	<b>Measured Rim Diameter</b>
Right Front Wheel	<u>195/60R16</u>	<u>6.0 in (15.2 cm)</u>	<u>16.0 in (40.6 cm)</u>
Left Rear Wheel	<u>195/60R16</u>	<u>6.0 in (15.2 cm)</u>	<u>16.0 in (40.6 cm)</u>

Does stamped rim size (if available) agree with the measured rim size?  
 Right front rim: ( X )YES ( ) NO      Left rear rim: ( X )YES ( ) NO

Installed rims are suitable for installed tires? ( X )YES ( )NO  
 Reference document: 2008 Japan Automobile Tyre Manufacturers Association Yearbook

DATA INDICATES COMPLIANCE: PASS/FAIL: PASS

REMARKS: Lettering height: 5 mm. Refer to Figure 5.13 for additional rim markings.

RECORDED BY: Jack R. Stewart DATE: June 26, 2008

APPROVED BY: Kenneth H. Yates

## DATA SHEET 4 (1 of 2) VEHICLE PLACARD, AND TIRE INFLATION PRESSURE LABEL

VEHICLE MAKE/MODEL/BODY STYLE: 2008 Scion xD five-door passenger car

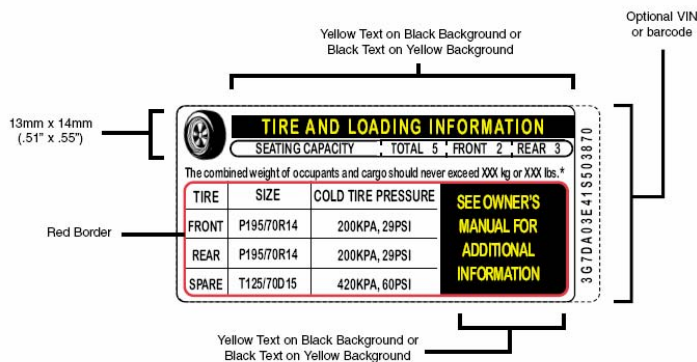
VEHICLE NHTSA NUMBER: C85107 VIN: JTKKU10468J015848

LABORATORY: US DOT San Angelo Test Facility TEST DATE: June 26, 2008

### Identification of Vehicle Labeling

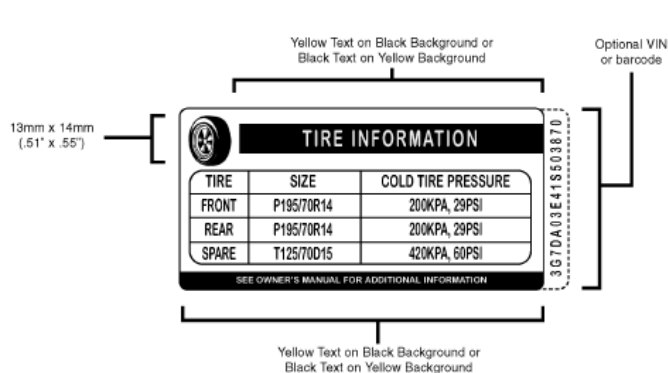
	(Yes/No)	Location	PASS/FAIL
1. Certification Label	Yes	Driver's side B pillar	PASS
2. Vehicle Placard	Yes	Driver's side B pillar	PASS
3. Tire Inflation Pressure Label	N/A		

#### Vehicle Placard



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

#### Tire Inflation Pressure Label



**FIGURE 2B  
(70 FR 14426)**

### Labeling Notes:

1. Tire size and pressure can be omitted from the Vehicle Placard if same data is displayed on a Tire Inflation Pressure Label.
2. The Alphanumeric Identifier or Barcode, is optional. It can be located vertically, along the right edge or the left edge of the placard or the label, or horizontally, along the bottom edge of the placard or the label.
3. Tire size can include the tire load range identification symbol ( "XL" or "reinforced", "B", "C", "D", "E", or "F"), the load index number, and the speed rating symbol, located immediately to the right of the tire size designation.
4. The tire "SIZE" heading can be replaced with "ORIGINAL TIRE SIZE" or "ORIGINAL SIZE."
5. The "SPARE" tire heading can be replaced with "SPARE TIRE."
6. For full size spare tires, the recommended cold tire inflation pressure can be replaced with "SEE ABOVE".
7. If no spare tire is provided, the word "NONE" is to replace the manufacturer's cold tire inflation pressure.

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

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

**Vehicle Placard** is permanently affixed. ( X )YES ( )NO

**Vehicle Placard Information:**

Combined weight of occupants and cargo 383 kg (845 lbs)

Seating Capacity: Total 5 Front 2 Rear 3

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 Placard Tire Information:**

Tire size: Front 195/60R16 Rear 195/60R16

Tire Inflation Pressure: Front 230 kPa (33 psi) Rear 230 kPa (33 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

DATA INDICATES COMPLIANCE: PASS/FAIL: PASS

REMARKS: Vehicle placard wording is duplicated in an additional language.

RECORDED BY: Jack R. Stewart

DATE: June 26, 2008

APPROVED BY: Kenneth H. Yates

**DATA SHEET 5 (1 of 4)**  
**CURB WEIGHT, NORMAL LOAD WEIGHT & MAXIMUM VEHICLE WEIGHT**

VEHICLE MAKE/MODEL/BODY STYLE: 2008 Scion xD five-door passenger car

VEHICLE NHTSA NUMBER: C85107 VIN: JTKKU10468J015848

LABORATORY: US DOT San Angelo Test Facility TEST DATE: July 8, 2008

Full Fluid Levels: Fuel Full Coolant Full Other Fluids\* Full

\* Transmission, windshield washer, power steering fluid, battery, & engine oil

Tire Pressures: LF 230.0 kPa (33.4 psi) LR 230.1 kPa (33.4 psi)  
RF 230.1 kPa (33.4 psi) RR 230.0 kPa (33.4 psi)

**A. MEASURED CURB WEIGHT WITH INSTALLED OPTIONS AND ACCESSORIES**

LF 370 kg (815 lb) LR 235 kg (519 lb)  
RF 354 kg (781 lb) RR 239 kg (528 lb)  
Front Axle 724 kg (1,596 lb) Rear Axle 474 kg (1,047 lb)  
Total Vehicle 1,198 kg (2,643 lb)

**B. MEASURED VEHICLE NORMAL LOAD WEIGHT**

(1) Seating Capacity from Vehicle Placard = 5

(2) Normal Load Number of Occupants (Table in Section 10) = 3

Occupant Distribution: Front Seat 2 Second Seat 1

(3) Total Normal Occupant Load: 204 kg (450 lb)  
[# of occupants x 68 KG per occupant]

(4) Measured Normal Load on Axles:

LF 414 kg (913 lb) LR 291kg (642 lb)  
RF 401 kg (883 lb) RR 297kg (654 lb)  
Front Axle 815 kg (1,796 lb) Rear Axle 588 kg (1,296 lb)  
Total Vehicle 1,403 kg (3,092 lb)



**DATA SHEET 5 (3 of 4)**  
**CURB WEIGHT, NORMAL LOAD WEIGHT & MAXIMUM VEHICLE WEIGHT**

**D. MEASURED MAXIMUM VEHICLE LOAD WEIGHT**

(1) Vehicle Capacity Weight (from placard): 383 kg (845 lbs)

(2) Full Occupant Load (from C.(2)): 340 kg (750 lbs)

(3) Luggage/Cargo Load (subtract (2) from (1)): 43 kg (95 lbs)

(4) Measured Vehicle Maximum Load on Axles:

LF <u>425 kg (938 lb)</u>	LR <u>371 kg (818 lb)</u>
RF <u>410 kg (904 lb)</u>	RR <u>376 kg (828 lb)</u>
Front Axle <u>835 kg (1,842 lb)</u>	Rear Axle <u>747 kg (1,646 lb)</u>
Total Vehicle <u>1,582 kg (3,488 lb)</u>	

(5) Calculated Vehicle Maximum Load on the Tire:

Front Tires [measured front axle maximum load/2]= 418 kg (921 lbs)

Rear Tires [measured rear axle maximum load/2] = 373 kg (823 lbs)

(6) Tire Sidewall Maximum Load Ratings:

	Front	Rear
Installed Tire Size	<u>195/60R16</u>	<u>195/60R16</u>
Max. Load Rating on Sidewall	<u>580 kg (1,279 lbs)</u>	<u>580 kg (1,279 lbs)</u>

Vehicle Maximum Load on the tire must not be greater than the Maximum Load Rating Marked on the Tire Sidewall.

		PASS/FAIL
[D.(5)<D.(6)]	Front Tires	<u>PASS</u>
	Rear Tires	<u>PASS</u>



**DATA SHEET 5 (4 of 4)**  
**CURB WEIGHT, NORMAL LOAD WEIGHT & MAXIMUM VEHICLE WEIGHT**

- (7) Tire Load Ratings at Vehicle Placard or Tire Inflation Pressure Label  
 Recommended Cold Tire Inflation Pressure.

	Front Axle	Rear Axle
Labeled Tire Size	<u>195/60R16</u>	<u>195/60R16</u>
Labeled Cold Inflation Pressure	<u>230 kPa (33 psi)</u>	<u>230 kPa (33 psi)</u>
Load Rating at This Pressure*	<u>565 kg (1,246 lbs)</u>	<u>565 kg (1,246 lbs)</u>

\*Reference used to obtain Load Rating: 2008 Japan Automobile Tyre

Manufacturers Association Yearbook

Vehicle Normal Load on the Tire must not be greater than the Tire Load Rating at the Labeled Cold Tire Inflation Pressure.

		PASS/FAIL
[B.(5)<D.(7)]	Front Tires	<u>PASS</u>
	Rear Tires	<u>PASS</u>

Vehicle Maximum Load on the tire must not be greater than the Tire Load Rating at the Labeled Cold Tire Inflation Pressure.

		PASS/FAIL
[D.(5)<D.(7)]	Front Tires	<u>PASS</u>
	Rear Tires	<u>PASS</u>

DATA INDICATES COMPLIANCE:

PASS/FAIL: PASS

REMARKS: None

RECORDED BY: Jack R. Stewart

DATE: July 8, 2008

APPROVED BY: Kenneth H. Yates

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

VEHICLE MAKE/MODEL/BODY STYLE: 2008 Scion xD five-door passenger car

VEHICLE NHTSA NUMBER: C85107 VIN: JTKKU10468J015848

LABORATORY: US DOT San Angelo Test Facility TEST DATE: June 26, 2008

**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	169-174
(4)(ii)	(A) Description and explanation of recommended cold tire inflation pressure.	Yes	250-251
	(B) Description and explanation of FMVSS 110 Vehicle Placard and Tire Inflation Pressure Label and their location(s).	Yes	250
	(C) Description and explanation of adverse safety consequences of under-inflation including tire failure.	Yes	251
	(D) Description and explanation for measuring and adjusting air pressure to achieve proper inflation.	Yes	250-251
(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	176-181
(4)(vi)	Tire care, including maintenance and safety practices.	Yes	250-255
(4)(v)	(A) Description and explanation of locating and understanding load limit information, total load capacity, seating capacity, towing capacity, and cargo capacity.	Yes	183
	(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	182-186
	(C) Description and explanation for determining compatibility of tire and vehicle load capabilities.	Yes	253
	(D) Description and explanation of adverse safety consequences of overloading on handling and stopping and on tires.	Yes	183

**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  

RECORDED BY:   Jack R. Stewart  

DATE:   June 26, 2008  

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>
PLATFORM SCALE (BALLAST)	HOWE RICHARDSON	MODEL #6401 SERIAL #0181- 5509-26	8/14/2007	8/14/2008
AIR PRESSURE GAUGE	ASHCROFT GENERAL PURPOSE DIGITAL GAUGE	MODEL #D1005PS 02L 100 PSI SERIAL #20017398- 01	11/12/2007	11/12/2008
FLOOR SCALES (VEHICLE)	INTERCOMP SW DELUXE SCALES	PART #100156 SERIAL #27032382	8/14/2007	8/14/2008

SECTION 5  
PHOTOGRAPHS



2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

FIGURE 5.1  
¾ FRONTAL VIEW FROM LEFT SIDE OF VEHICLE





2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

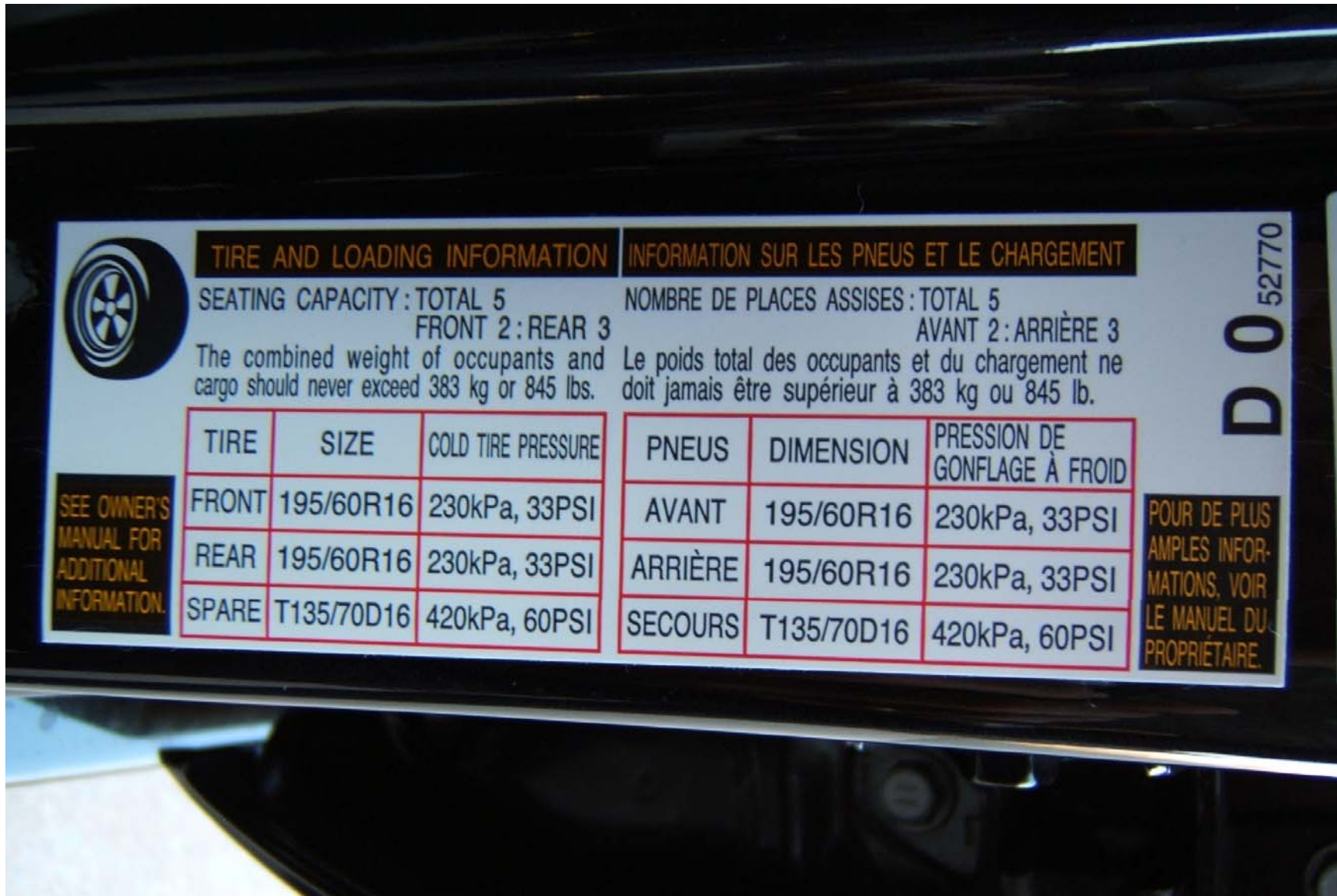
FIGURE 5.2  
¾ REAR FROM RIGHT SIDE OF VEHICLE



2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

FIGURE 5.3  
VEHICLE CERTIFICATION LABEL





**TIRE AND LOADING INFORMATION**

**INFORMATION SUR LES PNEUS ET LE CHARGEMENT**

SEATING CAPACITY: TOTAL 5  
FRONT 2: REAR 3

NOMBRE DE PLACES ASSISES: TOTAL 5  
AVANT 2: ARRIÈRE 3

The combined weight of occupants and cargo should never exceed 383 kg or 845 lbs.

Le poids total des occupants et du chargement ne doit jamais être supérieur à 383 kg ou 845 lb.

SEE OWNER'S  
MANUAL FOR  
ADDITIONAL  
INFORMATION.

TIRE	SIZE	COLD TIRE PRESSURE
FRONT	195/60R16	230kPa, 33PSI
REAR	195/60R16	230kPa, 33PSI
SPARE	T135/70D16	420kPa, 60PSI

PNEUS	DIMENSION	PRESSION DE GONFLAGE À FROID
AVANT	195/60R16	230kPa, 33PSI
ARRIÈRE	195/60R16	230kPa, 33PSI
SECOURS	T135/70D16	420kPa, 60PSI

POUR DE PLUS  
AMPLES INFOR-  
MATIONS, VOIR  
LE MANUEL DU  
PROPRIÉTAIRE.

D0 52770

2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

FIGURE 5.4  
VEHICLE PLACARD



2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

FIGURE 5.5  
TIRE SHOWING BRAND





2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

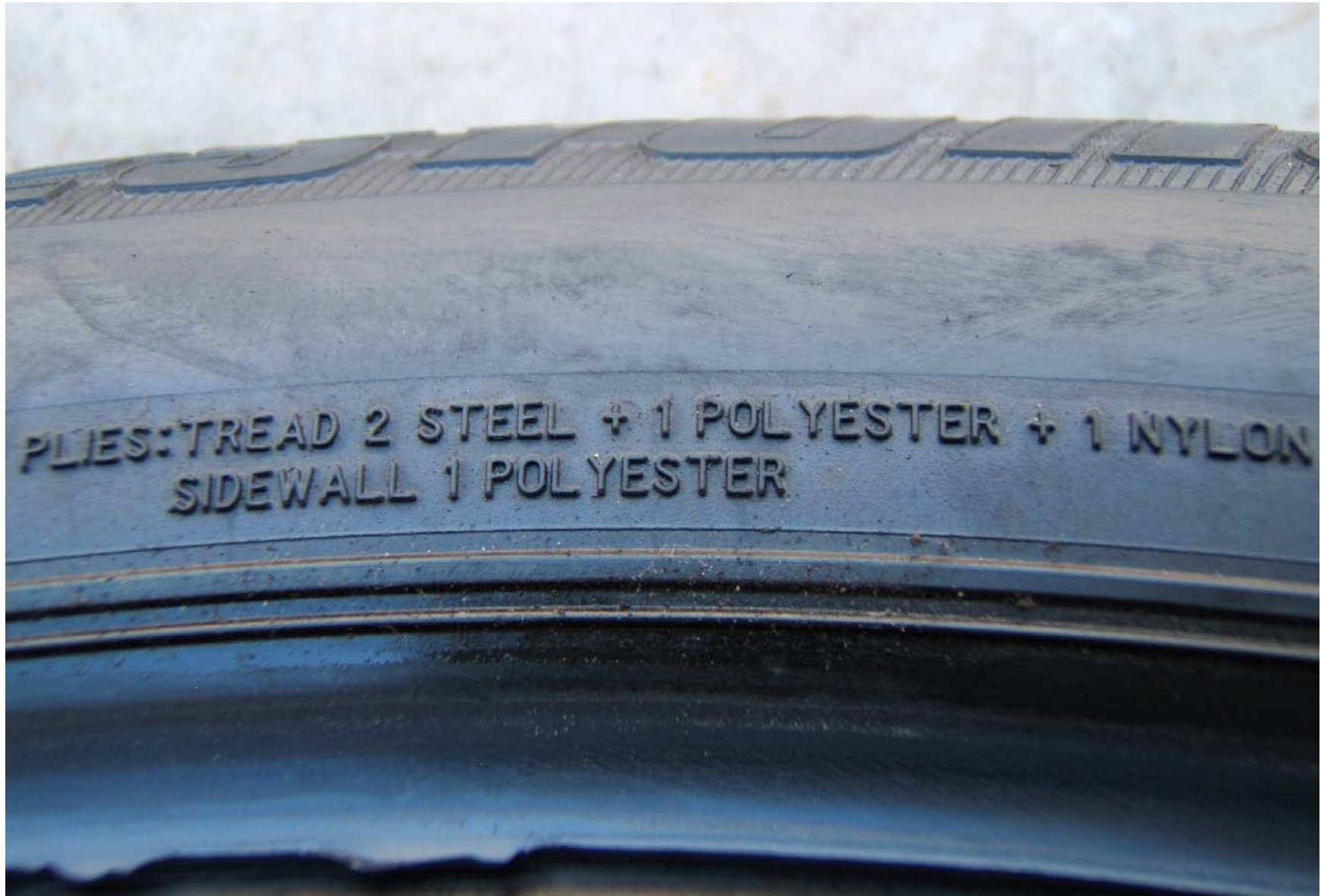
FIGURE 5.6  
TIRE SHOWING MODEL



2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

FIGURE 5.7  
TIRE SHOWING SIZE, LOAD INDEX, AND SPEED SYMBOL





2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

FIGURE 5.8  
TIRE SHOWING CONSTRUCTION



2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

FIGURE 5.9  
TIRE SHOWING MAX LOAD RATING  
AND MAX INFLATION PRESSURE





2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

FIGURE 5.10  
TIRE SHOWING SERIAL NUMBER



2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

FIGURE 5.11  
RIM CONTOUR FOR FULL WIDTH OF CROSS SECTION





2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

FIGURE 5.12  
RIM SHOWING LETTER DESIGNATION FOR SOURCE OF PUBLISHED DIMENSIONS,  
SIZE, DOT SYMBOL, MANUFACTURER'S SYMBOL, AND DATE OF MANUFACTURE



2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

FIGURE 5.13  
RIM MARKINGS





2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

FIGURE 5.14  
VEHICLE FRONT SEAT BALLASTED FOR  
NORMAL AND MAXIMUM LOADS



2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

FIGURE 5.15  
VEHICLE REAR SEAT BALLASTED  
FOR NORMAL LOAD



2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

FIGURE 5.16  
VEHICLE REAR SEAT BALLASTED  
FOR MAXIMUM LOAD





2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

FIGURE 5.17  
REAR OF VEHICLE SHOWN  
BALLASTED FOR MAXIMUM LOAD



2008 SCION XD  
NHTSA NO. C85107  
FMVSS 110

FIGURE 5.18  
VEHICLE ON WEIGHT SCALES