REPORT NUMBER 110-STF-11-002

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

## TOYOTA MOTOR MANUFACTURING, KENTUCKY, INC. 2011 TOYOTA CAMRY HYBRID FOUR-DOOR PASSENGER CAR NHTSA NO. CB5101

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



August 18, 2011

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.

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#### INTRODUCTION

#### 1.1 PURPOSE OF COMPLIANCE TEST

A 2011 Toyota Camry Hybrid 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 2011 Toyota Camry Hybrid four-door passenger car. Nomenclatures applicable to the test vehicle are:

- A. Vehicle Identification Number: 4T1BB3EK1BU136448
- B. NHTSA Number: CB5101
- C. <u>Manufacturer</u>: Toyota Motor Manufacturing, Kentucky, Inc.
- D. Manufacture Date: 06/2010

#### 1.3 TEST DATE

The test vehicle was tested March 24, 2011.

#### 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 was recorded and tires and rims were photographed.

The vehicle tire placard was photographed and checked for compliance to location, format, and information requirements. 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 weight, and Maximum Vehicle Load weight. At each step of the ballasting procedure, data was recorded. Ballast was photographically documented for the Normal, Full, and Maximum Vehicle Load weights. 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 placard, tire loading, and general tire and loading parameters.

#### 2.2 SUMMARY OF RESULTS

The data indicate compliance of the Toyota Camry Hybrid with all requirements tested.

TEST DATA

#### DATA SUMMARY SHEET

VEHICLE MAKE/MODEL/BODY STYLE: 2011 Toyota Camry Hybrid 4-door pa	assenger car
VEHICLE NHTSA NUMBER: CB5101 VIN: 4T1BB3EK1B	U136448
VEHICLE TYPE: passenger car DATE OF MANUFACTURE:	06/2010
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
Vehicle rims retain deflated tires during a controlled brake application. (S110, S4.4.1(b))	See _Remarks
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: <u>The rim retention test required by FMVSS No.110, paragraph S4.4</u> not executed on the subject Tovota Camry Hybrid.	I.1(b) was

not executed on the subject Toyota Camry Hybrid.

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

VEHICLE MAKE/MODEL/BODY STYLE: 2011 Toyota Camry Hybrid 4-door passenger car									
VEHICLE NHTSA NUMBER: CB5101 TEST DATE: March 24, 2011									
VIN: 4T1BB3EK1BU136448 MANUFACTURE DATE: 06/2010									
GVWR: (2,111 kg) 4,655 lb GAWR(front): (1,210 kg) 2,668 lb									
GAWR(rear): (1,070 kg) 2,359 lb									
Note: Kilograms shown are conversions. The certification label shows pounds only.									
SEATING POSITIONS: FRONT 2 MID N/A REAR 3									
ODOMETER READING AT START OF TEST: <u>175 km (109 mi)</u>									
ENGINE DATA: 4 Cylinders 2.4 Liters Cubic Inches									
TRANSMISSION DATA: X Automatic Manual CVT No. of Speeds									
FINAL DRIVE DATA: Rear Drive X Front Drive 4 Wheel Drive									
INSTALLED VEHICLE EQUIPMENT:									
X Air Conditioning X Traction Control X Clock									
Tinted Glass 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									
X   Power Seat(s)   X   Tilt Steering Wheel   X   Side Air Bag(s)									

Stereo

Telephone

Trailer Hitch

Х

REMARKS: Hybrid Synergy Drive

Antilock Brake System

Navigation System

**Power Brakes** 

Х

Х

RECORDED BY: Todd P. Groghan

DATE: March 24, 2011

Other -

Front Disc Brakes

Rear Disc Brakes

Х

Х

APPROVED BY: Kenneth H. Yates

#### DATA SHEET 2 VEHICLE TIRE IDENTIFICATION

VEHICLE MAKE/MODEL/BODY STYLE:2011 Toyota Camry Hybrid 4-door passenger carVEHICLE NHTSA NUMBER:CB5101VIN:4T1BB3EK1BU136448LABORATORY:US DOT San Angelo Test FacilityTEST DATE:March 24, 2011

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

Tire Sidewall	all Right Front			Left Rear (If different)		Spare Tire (If different)		
Manufacturer and Model		Michelin Energy MXV4 S8					Goodyear Convenience Spare	
Tire Size Designation	1	P215/6	0R16				T155/70D17	
Load Index/Speed Sy	mbol	94V					110M	
Maximum Inflation Pr	essure	300 kP	a (44 psi)				420 kPa (6	0 psi)
Maximum Load Ratin	g	670 kg	(1,477 lb)				1,060 kg (2	,337 lb)
Tread/Traction/Temp	erature	440/A	/A				N/A	
Tires Have "DOT" Markings Yes					Yes			
Serial Number:	Right Right	_	HN49JUAX141 HN49JUAX141		Left Front		49JUAX14 49JUAX14	
	S	Spare _	PCYY011P191	0				
DATA INDICATES COMPLIANCE: REMARKS: None					PA	SS/FAIL:	PASS	
RECORDED BY:		P. Gro	<u> </u>		DATE	:	March 24,	2011
APPROVED BY:	Kenne	eth H. `	Yates					

#### DATA SHEET 3 VEHICLE RIM IDENTIFICATION

VEHICLE MAKE/MODEL/BODY STYLE:			2011 Toyota	Camry Hybri	d 4-door passenger car
VEHICLE NHTSA	NUMBER:	CB5101	VIN:	4T1B	B3EK1BU136448
LABORATORY:	US DOT Sar	n Angelo Te	st Facility T	EST DATE:	March 24, 2011

Rim Markings (if available):			Right Front	Left Rear		
Manufacturer's Name, Symbol or Trademark		CN	10	CMC		
Rim Size		J16	Sx6½ JJ	J16x6½ JJ		
Date of Manufacture		51	0	5 10		
Does Rim contain "DOT" symbol? (YES/NO)		Ye	S	Yes		
Other Rim Markings		Se	See pages 29 and 30			
Rim Inspection Comments:		Nor	None			
Rim Size:						
	Tire Size		Measured Rim Width	Measured Rim Diameter		
Right Front Wheel	P215/60R16		16.5 cm (6.5 in)	40.6 cm (16.0 in)		
Left Rear Wheel P215/60R16		16.5 cm (6.5 in)		40.6 cm (16.0 in)		

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: <u>2010 Tire & Rim Association Yearbook</u>

DATA INDICATES COMPLIANCE:

PASS/FAIL: PASS

RECORDED BY: Todd P. Groghan

DATE: March 24, 2011

APPROVED BY: Kenneth H. Yates

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

VEHICLE MAKE/MODEL/BODY STYLE: 2011 Toyota Camry Hybrid 4-door passenger car						
VEHICLE NHTSA NUMBER: CB5101 VIN: 4T1BB3EK1BU136448						
LABORATORY: US DOT San Angelo Test Facility TEST DATE: March 24, 2011						
Identification of Vehicle Labeling	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	No					
4. Load Carrying Capacity Modification Label	Yes	Driver's side B-pillar	PASS			

#### **Vehicle Placard**

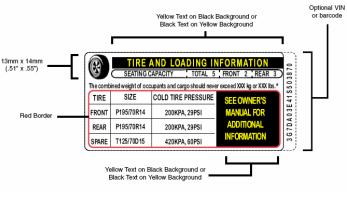


FIGURE 1 (70 FR 14425)

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	410 kg	(900 lb)		
Seating Capacity: Total <u>5</u>	Front	2	Rear _	3
Is the number of belted seating posicapacity?	itions the		the labele S ( )NG	•

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

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

#### **Vehicle Placard Tire Information:**

Tire size:	Front P215/60R	R16 Rear P215/60R16			
Tire Inflation Pressure:	Front <u>220 kPa (32</u>	2 psi) Rear 220 kPa (32 ps	si)		
Are the sizes of the inst	talled 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)Y	ΈS ()NO R	Rear axle: (X)YES ()NO			
Load Carrying Capacity Modification Label Information:					
Original Load Carry Capacity is reduced by: <u>8 kg (18 lbs)</u>					
DATA INDICATES COMPLIANCE: PASS/FAIL: PASS					

REMARKS: This vehicle is equipped with a Load Carrying Modification label requiring

vehicle placard weight capacity ratings to be reduced by 8 kg (18 lbs).

RECORDED BY: Todd P. Groghan

APPROVED BY: Kenneth H. Yates

DATE: March 24, 2011

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

VEHICLE MAKE/MODEL/BODY STYLE	2011 Toyota Camry Hybrid 4-door passenger car
VEHICLE NHTSA NUMBER: CB5101	VIN: 4T1BB3EK1BU136448
LABORATORY: US DOT San Angelo	Test Facility TEST DATE: March 24, 2011

Full Fluid Levels: Fuel <u>Full</u> Coolant <u>Full</u> Other Fluids\* <u>Full</u> \* Transmission, windshield washer, brake, and engine oil.

Tire Pressures:	LF	220 kPa (32	2 psi) LR	220 kPa (32 psi)
	RF	220 kPa (32	<u>2 psi)</u> RR	220 kPa (32 psi)

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

LF	474 kg (1,046 lb)	LR	347 kg (764 lb)
RF	471 kg (1,038 lb)	RR	341 kg (752 lb)
Front Axle	945 kg (2,084 lb)	Rear Axle	688 kg (1,516 lb)

Total Vehicle <u>1,633 kg (3,600 lb)</u>

#### **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: <u>204 kg (450 lb)</u> [# of occupants x 68 KG per occupant]
- (4) Measured Normal Load on Axles:

LF	518 kg (1,142 lb)	LR _	407 kg (8	897 lb)
RF	512 kg (1,129 lb)	RR _	400 kg (8	882 lb)
Front Axle	1,030 kg (2,271 lb)	Rear Axle	807 kg (1	,779 lb)
	Total Vehicle 1,837 kg	(4,050 lb)		

#### DATA SHEET 5 (2 of 4) CURB WEIGHT, NORMAL LOAD WEIGHT & MAXIMUM VEHICLE WEIGHT

(5) Calculated Vehicle Normal Load on the Tire:

Front Tires [measured front axle normal load/2] =	515 kg (1,136 lb)
Rear Tires [measured rear axle normal load/2] =	404 kg (890 lb)

(6) Calculated 94% of tire load rating at recommended cold inflation pressure:

Load rating at recommend cold inflation pressure=	640 kg (1,411 lb)
94% of load rating =	601 kg (1,326 lb)

Vehicle Normal Load on the Tire must not be greater than 94% of Load Rating Value.

		PASS/FAIL
[B.(5) <b.(6)]< td=""><td>Front Tires</td><td>PASS</td></b.(6)]<>	Front Tires	PASS
	Rear Tires	PASS

#### C. MEASURED VEHICLE WEIGHT WITH FULL OCCUPANT LOAD

(1)	Seating Capacity from Placard:
-----	--------------------------------

Total 5 Front 2 Rear	3	
----------------------	---	--

(2) Full Occupant Load: <u>340 kg (750 lb)</u> [# of total occupants from C.(1) x 68 KG per occupant]

#### (3) Measured Vehicle Weight with Full Occupant Load:

LF	532 kg (1,172 lb)	LR	464 kg (1,022 lb)
RF	523 kg (1,152 lb)	RR	455 kg (1,004 lb)
Front Axle	1,055 kg (2,324 lb)	Rear Axle	919 kg (2,026 lb)

Total Vehicle 1,974 kg (4,350 lb)

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

#### D. MEASURED MAXIMUM VEHICLE LOAD WEIGHT

(1)	Vehicle C	apacity Weight (see Re	402 kg (882 lb)	
(2)	Full Occu	pant Load (from C.(2)):	340 kg (750 lb)	
(3)	Luggage/Cargo Load (subtract (2) from (1)):			62 kg (132 lb)
(4) Measured Vehicle Maximum Load on Axles:				
	LF	526 kg (1,160 lb)	LR	501 kg (1,104 lb)
	RF	515 kg (1,136 lb)	RR	491 kg (1,082 lb)
	Front Axle	1,041 kg (2,296 lb)	Rear Axle	992 kg (2,186 lb)
		Total Vehicle	2,033 kg (4,482	2 lb)

(5) Calculated Vehicle Maximum Load on the Tire:

Front Tires [measured front axle maximum load/2]= _	521 kg (1,148 lb)
Rear Tires [measured rear axle maximum load/2] = _	496 kg (1,093 lb)

(6) Tire Sidewall Maximum Load Ratings:

	Front	Rear
Installed Tire Size	P215/60R16	P215/60R16
Max. Load Rating on Sidewall	670 kg (1,477 lb)	670 kg (1,477 lb)

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)]< td=""><td>Front Tires</td><td>PASS</td></d.(6)]<>	Front Tires	PASS
	Rear Tires	PASS

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

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

	Front Axle	Rear Axle			
Labeled Tire Size	P215/60R16	P215/60R16			
Labeled Cold Inflation Pressure	220 kPa (32 psi)	220 kPa (32 psi)			
Load Rating at This Pressure	640 kg (1,411 lb)	640 kg (1,411 lb)			
Reference used to obtain Load Rating: 2010 Tire & Rim 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)]< td=""><td>Front Tires</td><td>PASS</td></d.(7)]<>	Front Tires	PASS
	Rear Tires	PASS

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)]< td=""><td>Front Tires</td><td>PASS</td></d.(7)]<>	Front Tires	PASS		
	Rear Tires	PASS		
DATA INDICATES COMPLIANCE:		PASS/FAIL: PASS		
REMARKS: D. (1), placard vehicle capacity weight, has been reduced by the amount –				

REMARKS

8 kg (18 lbs) - on the Load Carrying Capacity Modification Label, resulting in the values

shown. The vehicle capacity label numbers are not exact conversions, thus the values in

D. (1) and D. (3) are also not exact.

RECORDED BY: Todd P. Groghan

APPROVED BY: Kenneth H. Yates

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

VEHICLE MAKE/MODEL/BODY STYLE:			2011 Toyota Camry Hybrid 4-door passenger car				
VEHICLE NHTSA	NUMBER:	CB5101	VI	N:	4T1BB3E	K1BU136448	
LABORATORY:	US DOT Sar	n Angelo Te	st Facility	TEST DA	TE:	March 24, 2011	

#### Discussed in Part 575.6(a) **Required Discussion Topic Page Numbers** Manual? Paragraph (YES/NO) (4)(i) Tire labeling, including a description and explanation of each Yes 462 - 464 marking on the tires provided with the vehicle, and information about the location of the Tire Identification Number (TIN). (A) Description and explanation of recommended cold tire (4)(ii) Yes 363.468 inflation pressure. (B) Description and explanation of FMVSS NO. 110 Vehicle Yes 363 Placard and Tire Inflation Pressure Label and their location(s). (C) Description and explanation of adverse safety Yes 366 consequences of under-inflation including tire failure. (D) Description and explanation for measuring and adjusting Yes 364.365 air pressure to achieve proper inflation. (4)(iii) Glossary of tire terminology, including "cold tire pressure," Yes 468 - 473 maximum inflation pressure," and "recommended inflation pressure," and all non-technical terms defined in S3 of FMVSS NO. 110 & 139. (4)(iv) Tire care, including maintenance and safety practices. Yes 354 - 357, 361 (4)(v) (A) Description and explanation of locating and Yes 172 understanding load limit information, total load capacity, seating capacity, towing capacity, and cargo capacity. (B) Description and explanation for calculating total and cargo Yes 169 - 172 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. (C) Description and explanation for determining compatibility Yes 358 of tire and vehicle load capabilities. (D) Description and explanation of adverse safety Yes 172 consequences of overloading on handling and stopping and on tires.

#### **Owner's Manual Discusses:**

#### 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: Todd P. Groghan

DATE: March 24, 2011

APPROVED BY: Kenneth H. Yates

#### TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

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

SECTION 5 PHOTOGRAPHS

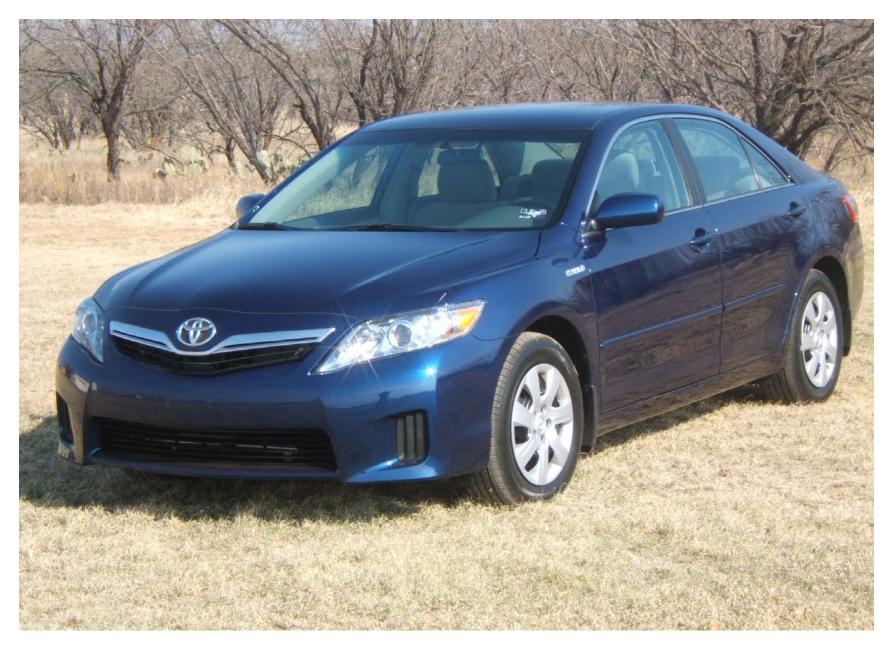


FIGURE 5.1 ¾ FRONT VIEW FROM LEFT SIDE OF VEHICLE



FIGURE 5.2 ¾ REAR VIEW FROM RIGHT SIDE OF VEHICLE

2011 TOYOTA CAMRY HYBRID NHTSA NO. CB5101 FMVSS NO. 110



FIGURE 5.3 VEHICLE CERTIFICATION LABEL

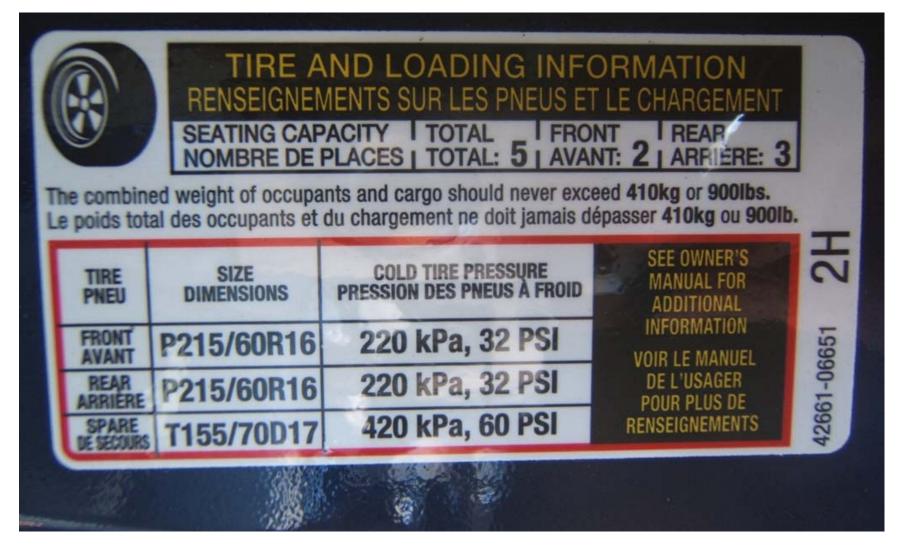


FIGURE 5.4 VEHICLE PLACARD

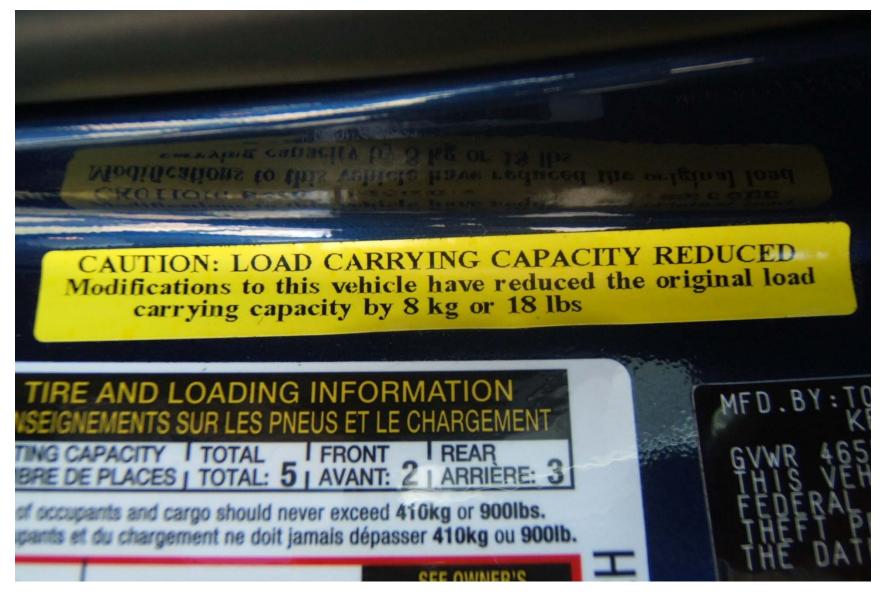


FIGURE 5.5 LOAD CARRYING CAPACITY MODIFICATION LABEL



FIGURE 5.6 TIRE SHOWING BRAND



FIGURE 5.7 TIRE SHOWING MODEL



FIGURE 5.8 TIRE SHOWING SIZE, LOAD INDEX, AND SPEED SYMBOL



FIGURE 5.9 TIRE SHOWING MAX LOAD RATING AND MAX INFLATION PRESSURE

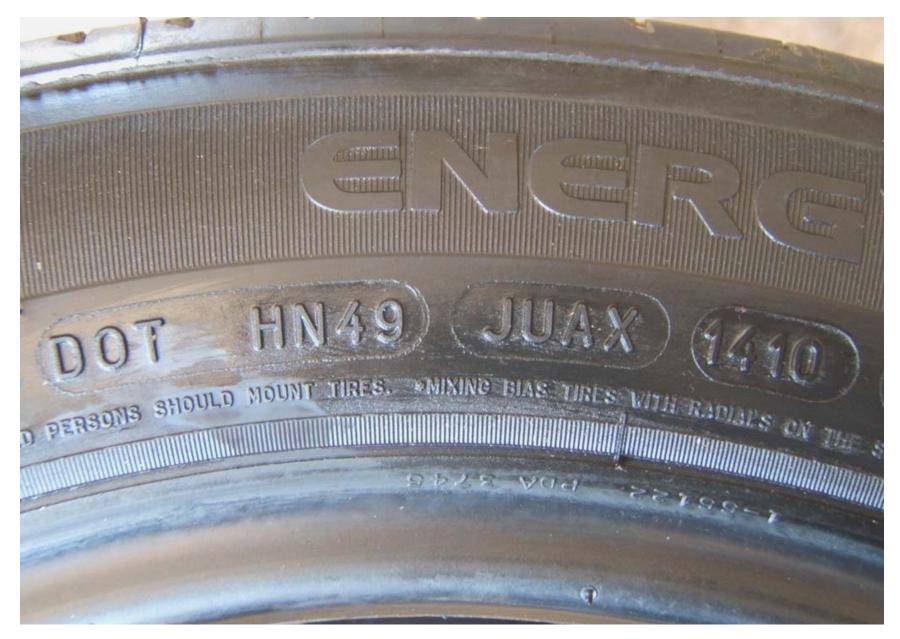


FIGURE 5.10 TIRE SHOWING SERIAL NUMBER



FIGURE 5.11 RIM CONTOUR FOR FULL WIDTH OF CROSS SECTION, SHOWING TPMS SENDING UNIT 28



FIGURE 5.12 RIGHT FRONT RIM SHOWING LETTER DESIGNATION FOR SOURCE OF PUBLISHED DIMENSIONS, SIZE, DOT SYMBOL, MANUFACTURER'S SYMBOL, DATE OF MANUFACTURE, AND OTHER RIM MARKINGS 29







FIGURE 5.13 RIGHT FRONT RIM SHOWING OTHER RIM MARKINGS



FIGURE 5.14 VEHICLE FRONT SEATS BALLASTED FOR NORMAL, FULL, AND MAXIMUM LOADS 31



FIGURE 5.15 VEHICLE REAR SEAT BALLASTED FOR NORMAL LOAD



FIGURE 5.16 VEHICLE REAR SEAT BALLASTED FOR FULL AND MAXIMUM LOADS 33



FIGURE 5.17 VEHICLE TRUNK BALLASTED FOR MAXIMUM LOAD



FIGURE 5.18 VEHICLE ON WEIGHT SCALES