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## 6-1. Specifications

### Maintenance data (fuel, oil level, etc.)

#### Dimensions

##### ► 2WD models except PreRunner

Cab type	Regular Cab	Access Cab		Double Cab
		Except X-Runner	X-Runner	
Overall length	190.4 in. (4835 mm)	208.1 in. (5285 mm)		
Overall width	72.2 in. (1835 mm)		74.0 in. (1880 mm)	74.6 in. (1895 mm)
Overall height*	65.8 in. (1670 mm)	66.1 in. (1680 mm)	65.6 in. (1665 mm)	66.1 in. (1680 mm)
Wheelbase	109.6 in. (2785 mm)	127.4 in. (3235 mm)		
Front tread	61.0 in. (1550 mm)		62.2 in. (1580 mm)	61.0 in. (1550 mm)
Rear tread	61.0 in. (1550 mm)		62.2 in. (1580 mm)	61.0 in. (1550 mm)

\*: Unladen vehicle

##### ► 4WD models and PreRunner

Cab type	Regular Cab	Access Cab
Overall length	190.4 in. (4835 mm)	208.1 in. (5285 mm)
Overall width	74.6 in. (1895 mm)	
Overall height*	69.9 in. (1775 mm)	70.3 in. (1785 mm)
Wheelbase	109.6 in. (2785 mm)	127.4 in. (3235 mm)
Front tread	63.0 in. (1600 mm)	
Rear tread	63.4 in. (1610 mm)	

\*: Unladen vehicle

Cab type	Double Cab	
	With short deck	With long deck
Overall length	208.1 in. (5285 mm)	221.3 in. (5620 mm)
Overall width	74.6 in. (1895 mm)	
Overall height*	70.1 in. (1780 mm)	
Wheelbase	127.4 in. (3235 mm)	140.6 in. (3570 mm)
Front tread	63.0 in. (1600 mm)	
Rear tread	63.4 in. (1610 mm)	

\*: Unladen vehicle

### Vehicle capacity weight

► 2WD models except PreRunner

Cab type	Engine	Deck type	Vehicle capacity weight (Occupant + luggage)*
Regular Cab	2.7 L 4-cylinder (2TR-FE) engine	Long deck	1250 lb. (567 kg)
Access Cab	2.7 L 4-cylinder (2TR-FE) engine		1200 lb. (544 kg)
	4.0 L V6 (1GR-FE) engine		850 lb. (386 kg)
Double Cab	2.7 L 4-cylinder (2TR-FE) engine		1100 lb. (499 kg)

\*: Installing accessories in addition to those installed at the factory increases vehicle weight, thereby reducing vehicle capacity weight. Contact your Toyota dealer about the weight of accessory parts.

## ► PreRunner

Cab type	Engine	Deck type	Vehicle capacity weight (Occupant + luggage)*
Access Cab	2.7 L 4-cylinder (2TR-FE) engine	Long deck	1300 lb. (590 kg)
	4.0 L V6 (1GR-FE) engine		
Double Cab	2.7 L 4-cylinder (2TR-FE) engine	Short deck	
	4.0 L V6 (1GR-FE) engine	Long deck	

\*: Installing accessories in addition to those installed at the factory increases vehicle weight, thereby reducing vehicle capacity weight. Contact your Toyota dealer about the weight of accessory parts.

## ► 4WD models

Cab type	Engine	Deck type	Vehicle capacity weight (Occupant + luggage)*
Regular Cab	2.7 L 4-cylinder (2TR-FE) engine	Long deck	1300 lb. (590 kg)
Access Cab	2.7 L 4-cylinder (2TR-FE) engine		1205 lb. (547 kg)
	4.0 L V6 (1GR-FE) engine		
Double Cab	4.0 L V6 (1GR-FE) engine	Short deck	1200 lb. (544 kg)
		Long deck	1100 lb. (499 kg)

\*: Installing accessories in addition to those installed at the factory increases vehicle weight, thereby reducing vehicle capacity weight. Contact your Toyota dealer about the weight of accessory parts.

**TWR (Trailer Weight Rating)**

## ► Regular Cab models

Model code*1	Engine	Driving system	TWR
TRN220L-TRMDKA	2.7 L 4-cylinder (2TR-FE) engine	2WD	3500 lb. (1587 kg)
TRN220L-TRPDKA			
TRN240L-TRMDKA		4WD	
TRN240L-TRPDKA			

## ► Access Cab models

Model code*1	Engine	Driving system	TWR
TRN225L-CRMDKA	2.7 L 4-cylinder (2TR-FE) engine	2WD	3500 lb. (1587 kg)
TRN225L-CRPDKA			
TRN245L-CRMDKA		4WD	
TRN245L-CRPDKA			
TRN265L-CRPDKA			
GRN225L-CRFDKA	4.0 L V6 (1GR-FE) engine	2WD	3300 lb. (1496 kg)
GRN245L-CRADKA		4WD	3500 lb. (1587 kg) <sup>*2</sup>
			6500 lb. (2948 kg) <sup>*3</sup>
GRN245L-CRFDKA			3500 lb. (1587 kg) <sup>*2</sup>
			6500 lb. (2948 kg) <sup>*3</sup>
GRN265L-CRADKA		2WD	3500 lb. (1587 kg) <sup>*2</sup>
	6500 lb. (2948 kg) <sup>*3</sup>		

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Vehicle specifications

## ► Double Cab models

Model code*1	Engine	Driving system	TWR
TRN225L-PRPDKA	2.7 L 4-cylinder (2TR-FE) engine	2WD	3400 lb. (1542 kg)
TRN265L-PRPDKA			3500 lb. (1587 kg)
GRN245L-PRADKA	4.0 L V6 (1GR-FE) engine	4WD	3500 lb. (1587 kg) <sup>*2</sup>
			6400 lb. (2903 kg) <sup>*3</sup>
GRN245L-PRFDKA			3500 lb. (1587 kg) <sup>*2</sup>
			6400 lb. (2903 kg) <sup>*3</sup>
GRN250L-PRADKA		4WD	3500 lb. (1587 kg) <sup>*2</sup>
			6300 lb. (2857 kg) <sup>*3</sup>
GRN265L-PRADKA		2WD	3500 lb. (1587 kg) <sup>*2</sup>
			6500 lb. (2948 kg) <sup>*3</sup>
GRN270L-PRADKA			3500 lb. (1587 kg) <sup>*2</sup>
			6500 lb. (2948 kg) <sup>*3</sup>

\*1: The model code is indicated on the Certification Label. (→P. 489)

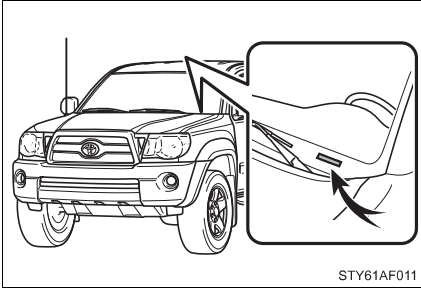
\*2: Without towing package

\*3: With towing package

## Vehicle identification

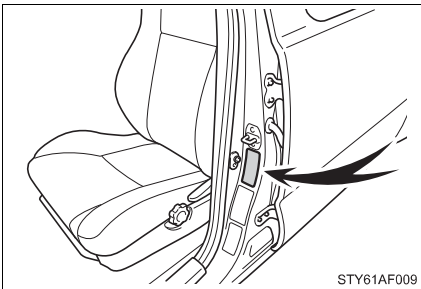
### ■ Vehicle identification number

The vehicle identification number (VIN) is the legal identifier for your vehicle. This is the primary identification number for your Toyota. It is used in registering the ownership of your vehicle.



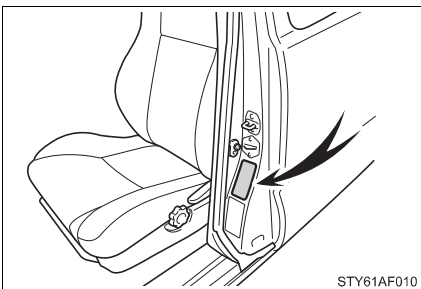
This number is stamped on the top left of the instrument panel.

### ▶ Regular Cab and Double Cab models



This number is also on the Certification Label.

### ▶ Access Cab models

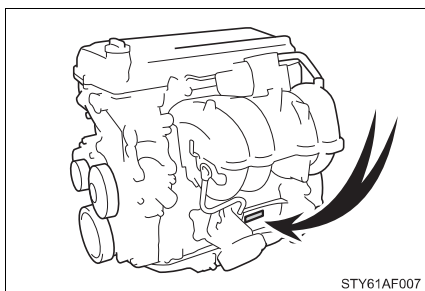


This number is also on the Certification Label.

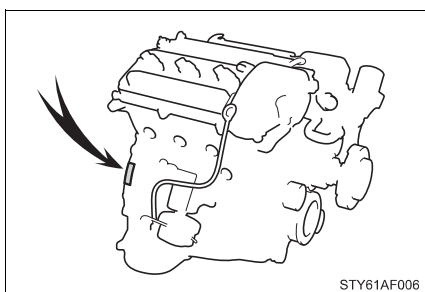
■ **Engine number**

The engine number is stamped on the engine block as shown.

▶ **2.7 L 4-cylinder (2TR-FE) engine**



▶ **4.0 L V6 (1GR-FE) engine**





**Engine**

## ▶ 2.7 L 4-cylinder (2TR-FE) engine

Model	2TR-FE
Type	4-cylinder in line, 4-cycle, gasoline
Bore and stroke	3.74 × 3.74 in. (95.0 × 95.0 mm)
Displacement	164.3 cu.in. (2694 cm <sup>3</sup> )
Drive belt tension	Automatic adjustment
Valve clearance (engine cold) Intake Exhaust	Automatic adjustment

## ▶ 4.0 L V6 (1GR-FE) engine

Model	1GR-FE
Type	6-cylinder V type, 4-cycle, gasoline
Bore and stroke	3.70 × 3.74 in. (94.0 × 95.0 mm)
Displacement	241.4 cu.in. (3956 cm <sup>3</sup> )
Drive belt tension	Automatic adjustment
Valve clearance (engine cold) Intake Exhaust	0.006 — 0.010 in. (0.15 — 0.25 mm) 0.011 — 0.015 in. (0.29 — 0.39 mm)

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Vehicle specifications

**Fuel**

Fuel type	Unleaded gasoline only
Octane rating	87 (Research octane number 91) or higher
Fuel tank capacity (Reference)	21.1 gal. (80.0 L, 17.6 Imp.gal.)

## Lubrication system

### ► 2.7 L 4-cylinder (2TR-FE) engine

Oil capacity  
(Drain and refill  
-reference)

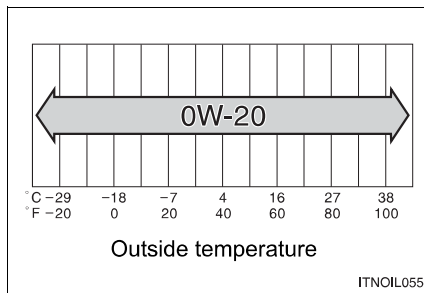
- With filter  
6.1 qt. (5.8 L, 5.1 Imp.qt.)
- Without filter  
5.4 qt. (5.1 L, 4.5 Imp.qt.)

### ■ Engine oil selection

“Toyota Genuine Motor Oil” is used in your Toyota vehicle. Use Toyota approved “Toyota Genuine Motor Oil” or equivalent to satisfy the following grade and viscosity.

Oil grade: ILSAC multigrade engine oil

Recommended viscosity: SAE 0W-20



SAE 0W-20 is the best choice for good fuel economy and good starting in cold weather.

If SAE 0W-20 is not available, SAE 5W-20 oil may be used. However, it must be replaced with SAE 0W-20 at the next oil change.

The 0W portion of the oil viscosity rating indicates the characteristic of the oil which allows cold startability. Oils with a lower value before the W allow for easier starting of the engine in cold weather.

The 20 in 0W-20 indicates the oil viscosity when the oil is at its operating temperature. An oil with a higher viscosity may be better suited if the vehicle is operated at high speeds, or under extreme load conditions.

How to read oil container label:

The ILSAC (International Lubricant Standardization and Approval Committee) Certification Mark is added to some oil containers to help you select the oil you should use.



▶ 4.0 L V6 (1GR-FE) engine

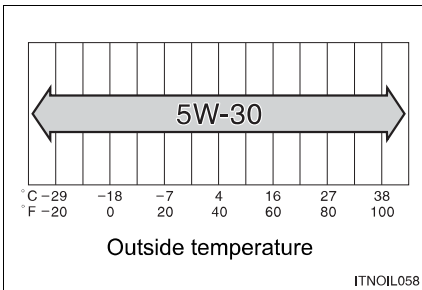
<p>Oil capacity (Drain and refill -reference)</p> <p>▶ 2WD models except PreRunner</p> <p>▶ 4WD models and PreRunner</p>	<p>▶ With filter 4.8 qt. (4.5 L, 4.0 Imp.qt.)</p> <p>▶ Without filter 4.4 qt. (4.2 L, 3.7 Imp.qt.)</p> <p>▶ With filter 5.5 qt. (5.2 L, 4.6 Imp.qt.)</p> <p>▶ Without filter 5.2 qt. (4.9 L, 4.3 Imp.qt.)</p>
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### ■ Engine oil selection

“Toyota Genuine Motor Oil” is used in your Toyota vehicle. Use Toyota approved “Toyota Genuine Motor Oil” or equivalent to satisfy the following grade and viscosity.

Oil grade: ILSAC multigrade engine oil

Recommended viscosity: SAE 5W-30



SAE 5W-30 is the best choice for good fuel economy and good starting in cold weather.

If SAE 5W-30 is not available, SAE 10W-30 oil may be used. However, it should be replaced with SAE 5W-30 at the next oil change.

The 5W portion of the oil viscosity rating indicates the characteristic of the oil which allows cold startability. Oils with a lower value before the W allow for easier starting of the engine in cold weather.

The 30 in 5W-30 indicates the oil viscosity when the oil is at its operating temperature. An oil with a higher viscosity may be better suited if the vehicle is operated at high speeds, or under extreme load conditions.

How to read oil container label:

The ILSAC (International Lubricant Standardization and Approval Committee) Certification Mark is added to some oil containers to help you select the oil you should use.



**Cooling system**

Capacity	
▶ 2.7 L 4-cylinder (2TR-FE) engine	▶ Vehicles with an automatic transmission 9.1 qt. (8.6 L, 7.6 Imp.qt.) ▶ Vehicles with a manual transmission 9.2 qt. (8.7 L, 7.7 Imp.qt.)
▶ 4.0 L V6 (1GR-FE) engine	▶ Vehicles with an automatic transmission 10.1 qt. (9.6 L, 8.4 Imp.qt.) ▶ Vehicles with a manual transmission 10.3 qt. (9.7 L, 8.5 Imp.qt.)
Coolant type	Use either of the following. <ul style="list-style-type: none"> <li>• “Toyota Super Long Life Coolant”</li> <li>• Similar high-quality ethylene glycol-based non-silicate, non-amine, non-nitrite, and non-borate coolant with long-life hybrid organic acid technology</li> </ul> Do not use plain water alone.

**Ignition system**

Spark plug	
▶ 2.7 L 4-cylinder (2TR-FE) engine	
Make	DENSO
Gap	SK20HR11 0.043 in. (1.1 mm)
▶ 4.0 L V6 (1GR-FE) engine	
Make	DENSO
	NGK
Gap	K20HR-U11 LFR6C11 0.043 in. (1.1 mm)

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Vehicle specifications

 NOTICE**■ Iridium-tipped spark plugs (2.7 L 4-cylinder [2TR-FE] engine only)**

Use only iridium-tipped spark plugs. Do not adjust gap when tuning engine.

**Electrical system**

Battery	
Open voltage at 68°F (20°C):	12.6 — 12.8 V Fully charged 12.2 — 12.4 V Half charged 11.8 — 12.0 V Discharged (Voltage checked 20 minutes after the key is removed with all the lights turned off)
Charging rates	5 A max.

**Differential**

Oil capacity	Front (4WD models)	1.59 qt. (1.50 L, 1.32 Imp.qt.)
	Rear	▶ 2WD models except PreRunner 3.66 qt. (3.46 L, 3.04 Imp.qt.) ▶ 4WD models and PreRunner 3.12 qt. (2.95 L, 2.60 Imp.qt.)
Oil type and viscosity		Toyota Genuine Differential Gear Oil LT 75W-85 GL-5 or equivalent Your Toyota vehicle is filled with “Toyota Genuine Differential Gear Oil” at the factory. Use Toyota approved “Toyota Genuine Differential Gear Oil” or an equivalent of matching quality to satisfy the above specification. Please contact your Toyota dealer for further details.

**Automatic transmission**

## ▶ 4-speed models

Fluid capacity *	10.8 qt. (10.2 L, 9.0 Imp.qt.)
Fluid type	Toyota Genuine ATF Type T-IV

## ▶ 5-speed models

Fluid capacity *	<ul style="list-style-type: none"> <li>▶ Vehicles without towing package 11.3 qt. (10.7 L, 9.4 Imp.qt.)</li> <li>▶ Vehicles with towing package 11.5 qt. (10.9 L, 9.6 Imp.qt.)</li> </ul>
Fluid type	Toyota Genuine ATF WS

\*: The fluid capacity is the quantity of reference. If replacement is necessary, contact your Toyota dealer.

 **NOTICE**

■ **Automatic transmission fluid type (4-speed models)**

Using automatic transmission fluid other than “Toyota Genuine ATF Type T-IV” may cause deterioration in shift quality, locking up of your transmission accompanied by vibration, and ultimately damage the automatic transmission of your vehicle.

■ **Automatic transmission fluid type (5-speed models)**

Using automatic transmission fluid other than “Toyota Genuine ATF WS” may cause deterioration in shift quality, locking up of your transmission accompanied by vibration, and ultimately damage the automatic transmission of your vehicle.

**Manual transmission**

Gear oil capacity (Reference)	
▶ 2.7 L 4-cylinder (2TR-FE) engine	▶ 2WD models 2.7 qt. (2.6 L, 2.3 Imp.qt.)
▶ 4.0 L V6 (1GR-FE) engine	▶ 4WD models 2.3 qt. (2.2 L, 1.9 Imp.qt.) 1.9 qt. (1.8 L, 1.6 Imp.qt.)
Gear oil type	Gear oil API GL-4 or GL-5
Recommended gear oil viscosity	SAE 75W-90

**Clutch**

Clutch free play	0.2 — 0.6 in. (5 — 15 mm)
Fluid type	FMVSS No. 116 DOT 3 or SAE J1703

**Transfer (4WD models)**

Oil capacity	1.1 qt. (1.0 L, 0.9 Imp.qt.)
Oil type	Gear oil API GL-4 or GL-5
Recommended oil viscosity	SAE 75W-90



## Brakes

Pedal clearance <sup>*1</sup>	
▶ 2WD models except PreRunner	4.3 in. (110 mm)
▶ PreRunner	4.2 in. (106 mm)
▶ 4WD models	▶ Without off-road package 4.2 in. (106 mm) ▶ With off-road package 3.4 in. (88 mm)
Pedal free play	0.04 — 0.24 in. (1 — 6 mm)
Brake pad wear limit	0.04 in. (1.0 mm)
Brake lining wear limit	0.04 in. (1.0 mm)
Parking brake pedal travel <sup>*2</sup> (pedal type)	7 — 10 clicks
Parking brake lever travel <sup>*3</sup> (lever type)	7 — 10 clicks
Fluid type	FMVSS No. 116 DOT 3 or SAE J1703

\*1: Minimum pedal clearance when depressed with a force of 110 lbf (490 N, 50 kgf) with the engine running.

\*2: Parking brake pedal travel when depressed with a force of 67.4 lbf (300 N, 30.6 kgf).

\*3: Parking brake lever travel when pulled with a force of 44.9 lbf (200 N, 20.4 kgf).

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Vehicle specifications

## Chassis lubrication

Propeller shafts	
Spider	Lithium base chassis grease, NLGI No.2
Slide yoke	Molybdenum — disulfide lithium base chassis grease, NLGI No.2 or lithium base chassis grease, NLGI No.2

**Steering**

Free play	Less than 1.2 in. (30 mm)
Power steering fluid type	Automatic transmission fluid DEXRON® II or III

**Tires and wheels**

## ► Type A

Tire size	P215/70R15 97S
Tire inflation pressure (Recommended cold tire inflation pressure)	<p>Front tires: 30 psi (210 kPa, 2.1 kgf/cm<sup>2</sup> or bar)</p> <p>Rear tires: 33 psi (230 kPa, 2.3 kgf/cm<sup>2</sup> or bar)</p> <p>Spare tire *: 33 psi (230 kPa, 2.3 kgf/cm<sup>2</sup> or bar)</p> <p>Driving at high speeds above 100 mph (160 km/h) (in countries where such speeds are permitted by law) Add 3 psi (20 kPa, 0.2 kgf/cm<sup>2</sup> or bar) to the front tires and rear tires. Never exceed the maximum cold tire inflation pressure indicated on the tire sidewall.</p>
Wheel size	15 × 6 J, 15 × 6 JJ
Wheel nut torque	83 ft·lbf (113 N·m, 11.5 kgf·m)

\*: If you affix the spare tire to a front position, please make sure to adjust the tire to the correct inflation pressure as soon as possible.

## ► Type B

Tire size	P245/75R16 109S
Tire inflation pressure (Recommended cold tire inflation pressure)	<p>Front tires: 30 psi (210 kPa, 2.1 kgf/cm<sup>2</sup> or bar)</p> <p>Rear tires: 30 psi (210 kPa, 2.1 kgf/cm<sup>2</sup> or bar)</p> <p>Spare tire: 30 psi (210 kPa, 2.1 kgf/cm<sup>2</sup> or bar)</p> <p>Driving at high speeds above 100 mph (160 km/h) (in countries where such speeds are permitted by law) Add 3 psi (20 kPa, 0.2 kgf/cm<sup>2</sup> or bar) to the front tires and rear tires. Never exceed the maximum cold tire inflation pressure indicated on the tire sidewall.</p>
Wheel size	16 × 7 J, 16 × 7 JJ
Wheel nut torque	83 ft·lbf (113 N·m, 11.5 kgf·m)

## ► Type C

Tire size	P265/70R16 111T
Tire inflation pressure (Recommended cold tire inflation pressure)	<p>Front tires: 29 psi (200 kPa, 2.0 kgf/cm<sup>2</sup> or bar)</p> <p>Rear tires: 32 psi (220 kPa, 2.2 kgf/cm<sup>2</sup> or bar)</p> <p>Spare tire *: 32 psi (220 kPa, 2.2 kgf/cm<sup>2</sup> or bar)</p> <p>Driving at high speeds above 100 mph (160 km/h) (in countries where such speeds are permitted by law) Add 3 psi (20 kPa, 0.2 kgf/cm<sup>2</sup> or bar) to the front tires and rear tires. Never exceed the maximum cold tire inflation pressure indicated on the tire sidewall.</p>
Wheel size	16 × 7 JJ
Wheel nut torque	83 ft·lbf (113 N·m, 11.5 kgf·m)

\*: If you affix the spare tire to a front position, please make sure to adjust the tire to the correct inflation pressure as soon as possible.

## ► Type D

Tire size	P265/65R17 110S
Tire inflation pressure (Recommended cold tire inflation pressure)	<p>Front tires: 29 psi (200 kPa, 2.0 kgf/cm<sup>2</sup> or bar)</p> <p>Rear tires: 29 psi (200 kPa, 2.0 kgf/cm<sup>2</sup> or bar)</p> <p>Spare tire: 29 psi (200 kPa, 2.0 kgf/cm<sup>2</sup> or bar)</p> <p>Driving at high speeds above 100 mph (160 km/h) (in countries where such speeds are permitted by law) Add 3 psi (20 kPa, 0.2 kgf/cm<sup>2</sup> or bar) to the front tires and rear tires. Never exceed the maximum cold tire inflation pressure indicated on the tire sidewall.</p>
Wheel size	17 × 7 1/2 JJ
Wheel nut torque	83 ft·lbf (113 N·m, 11.5 kgf·m)

## ► Type E

Tire size	P255/45R18 99V
Tire inflation pressure (Recommended cold tire inflation pressure)	<p>Front tires: 35 psi (240 kPa, 2.4 kgf/cm<sup>2</sup> or bar)</p> <p>Rear tires: 35 psi (240 kPa, 2.4 kgf/cm<sup>2</sup> or bar)</p> <p>Spare tire: 35 psi (240 kPa, 2.4 kgf/cm<sup>2</sup> or bar)</p> <p>Driving at high speeds above 100 mph (160 km/h) (in countries where such speeds are permitted by law) Add 4 psi (30 kPa, 0.3 kgf/cm<sup>2</sup> or bar) to the front tires and rear tires. Never exceed the maximum cold tire inflation pressure indicated on the tire sidewall.</p>
Wheel size	18 × 8 JJ
Wheel nut torque	83 ft·lbf (113 N·m, 11.5 kgf·m)

**Light bulbs**

	Light Bulbs	Bulb No.	W	Type
Exterior	Headlights	—	60/55	A
	Front fog lights*	9145	42	B
	Parking and front side marker lights	—	5	D
	Front turn signal lights and daytime running lights*	4157 NAK	27/8	D
	Rear turn signal lights	3157A	27/8	D
	Back-up lights	921	18	C
	License plate lights	168	5	C
	High mounted stoplight	168	5	C
Interior	Interior light	—	5	E
	Personal lights	168	5	C

\*: If equipped

A: HB2 halogen bulbs

B: H10 halogen bulbs

C: Wedge base bulbs (clear)

D: Wedge base bulbs (amber)

E: Double end bulbs

**Your vehicle must use only unleaded gasoline.**

**Select octane rating 87 (Research Octane Number 91) or higher. Use of unleaded gasoline with an octane rating lower than 87 may result in engine knocking. Persistent knocking can lead to engine damage.**

At minimum, the gasoline you use should meet the specifications of ASTM D4814 in the U.S.A. and CGSB3.5-M93 in Canada.

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### ■ Fuel tank opening for unleaded gasoline

To help prevent incorrect fueling, your Toyota has a fuel tank opening that only accommodates the special nozzle on unleaded fuel pumps.

### ■ If your engine knocks

- Consult your Toyota dealer.
- You may occasionally notice light knocking for a short time while accelerating or driving uphill. This is normal and there is no need for concern.

### ■ Gasoline quality

In very few cases, driveability problems may be caused by the brand of gasoline you are using. If driveability problems persist, try changing the brand of gasoline. If this does not correct the problem, consult your Toyota dealer.

### ■ Gasoline quality standards

- Automotive manufacturers in the US, Europe and Japan have developed a specification for fuel quality called World-Wide Fuel Charter (WWFC) that is expected to be applied worldwide.
- The WWFC consists of four categories that are based on required emission levels. In the US, category 4 has been adopted.
- The WWFC improves air quality by lowering emissions in vehicle fleets, and customer satisfaction through better performance.

■ **Toyota recommends the use of gasoline containing detergent additives**

- Toyota recommends the use of gasoline that contains detergent additives to avoid build-up of engine deposits.
- All gasoline sold in the US contains detergent additives to clean and/or keep clean intake systems.

■ **Toyota recommends the use of cleaner burning gasoline**

Cleaner burning gasoline, including reformulated gasoline that contains oxygenates such as ethanol or MTBE (Methyl Tertiary Butyl Ether) is available in many areas.

Toyota recommends the use of cleaner burning gasoline and appropriately blended reformulated gasoline. These types of gasoline provide excellent vehicle performance, reduce vehicle emissions and improve air quality.

■ **Toyota does not recommend blended gasoline**

- Toyota allows the use of oxygenate blended gasoline where the oxygenate content is up to 10% ethanol or 15% MTBE.
- If you use gasohol in your Toyota, be sure that it has an octane rating no lower than 87.
- Toyota does not recommend the use of gasoline containing methanol.

■ **Toyota does not recommend gasoline containing MMT**

Some gasoline contains octane enhancing additive called MMT (Methylcyclopentadienyl Manganese Tricarbonyl).

Toyota does not recommend the use of gasoline that contains MMT. If fuel containing MMT is used, your emission control system may be adversely affected.

The malfunction indicator lamp on the instrument cluster may come on. If this happens, contact your Toyota dealer for service.

 NOTICE

■ **Notice on fuel quality**

- Do not use improper fuels.  
If improper fuels are used the engine will be damaged.
- Do not use leaded gasoline.  
Leaded gasoline can cause damage to your vehicle's three-way catalytic converters causing the emission control system to malfunction.
- Do not use gasohol other than that stated here.  
Other gasohol may cause fuel system damage or vehicle performance problems.
- Using unleaded gasoline with an octane number or rating lower than the level previously stated will cause persistent heavy knocking.  
At worst, this will lead to engine damage.

■ **Fuel-related poor driveability**

If after using a different type of fuel, poor driveability is encountered (poor hot starting, vaporization, engine knocking, etc.), discontinue the use of that type of fuel.

■ **When refueling with gasohol**

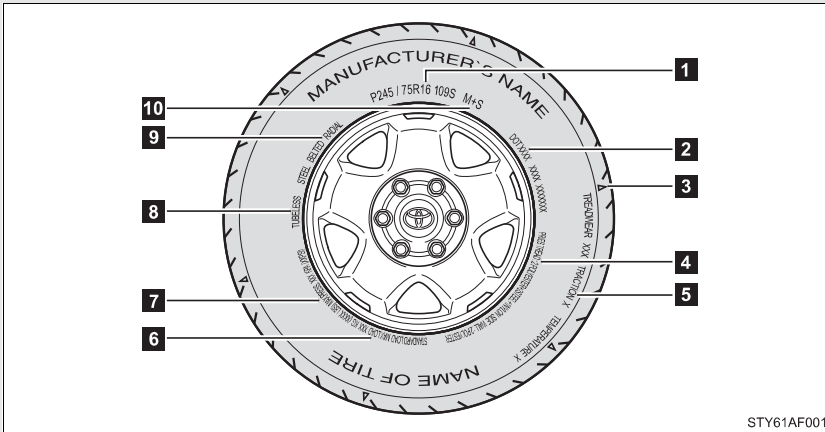
Take care not to spill gasohol.  
It can damage your vehicle's paint.



## 6-1. Specifications

### Tire information

#### Typical tire symbols



**1** Tire size (→P. 509)

**2** DOT and Tire Identification Number (TIN) (→P. 508)

**3** Location of treadwear indicators (→P. 388)

**4** Tire ply composition and materials

Plies are layers of rubber-coated parallel cords. Cords are the strands which form the plies in a tire.

**5** Uniform tire quality grading

For details, see “Uniform tire quality grading” that follows.

**6** Load limit at maximum cold tire inflation pressure (→P. 512)

**7** Maximum cold tire inflation pressure (→P. 512)

This means the pressure to which a tire may be inflated.

**8** TUBELESS or TUBE TYPE

A tubeless tire does not have a tube and air is directly filled in the tire. A tube type tire has a tube inside the tire and the tube maintains the air pressure.

6

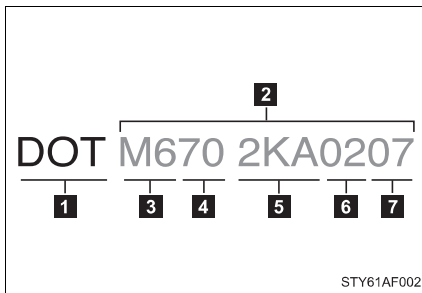
Vehicle specifications

**9 Radial tires or bias-ply tires**

A radial tire has RADIAL on the sidewall. A tire not marked RADIAL is a bias-ply tire.

**10 Summer tire or all season tire** (→P. 392)

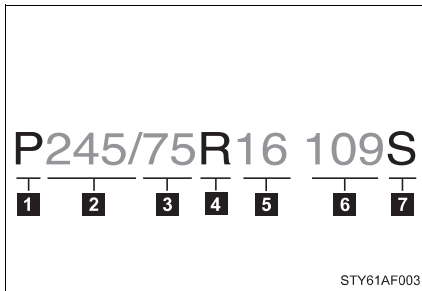
An all season tire has M+S on the sidewall. A tire not marked M+S is a summer tire.

**Typical DOT and tire identification number (TIN)****1** DOT symbol\***2** Tire Identification Number (TIN)**3** Tire manufacturer's identification mark**4** Tire size code**5** Manufacturer's optional tire type code (3 or 4 letters)**6** Manufacturing week**7** Manufacturing year

\*:The DOT symbol certifies that the tire conforms to applicable Federal Motor Vehicle Safety Standards.

## Tire size

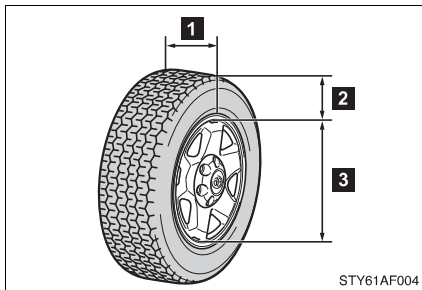
### ■ Typical tire size information



The illustration indicates typical tire size.

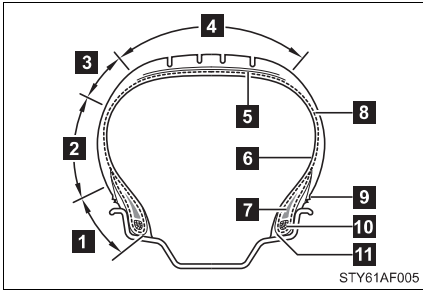
- 1** Tire use  
(P = Passenger car,  
T = Temporary use)
- 2** Section width (millimeters)
- 3** Aspect ratio  
(tire height to section width)
- 4** Tire construction code  
(R = Radial, D = Diagonal)
- 5** Wheel diameter (inches)
- 6** Load index (2 digits or 3 digits)
- 7** Speed symbol  
(alphabet with one letter)

### ■ Tire dimensions



- 1** Section width
- 2** Tire height
- 3** Wheel diameter

## Tire section names



- 1** Bead
- 2** Sidewall
- 3** Shoulder
- 4** Tread
- 5** Belt
- 6** Inner liner
- 7** Reinforcing rubber
- 8** Carcass
- 9** Rim lines
- 10** Bead wires
- 11** Chafer

## Uniform Tire Quality Grading

This information has been prepared in accordance with regulations issued by the National Highway Traffic Safety Administration of the U.S.A. Department of Transportation.

It provides the purchasers and/or prospective purchasers of Toyota vehicles with information on uniform tire quality grading.

Your Toyota dealer will help answer any questions you may have as you read this information.

### ■ DOT quality grades

All passenger vehicle tires must conform to Federal Safety Requirements in addition to these grades. Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width.

For example: Treadwear 200 Traction AA Temperature A

**■ Treadwear**

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course.

For example, a tire graded 150 would wear one and a half (1 - 1/2) times as well on the government course as a tire graded 100.

The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

**■ Traction AA, A, B, C**

The traction grades, from highest to lowest, are AA, A, B and C, and they represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete.

A tire marked C may have poor traction performance.

Warning: The traction grade assigned to this tire is based on braking (straight ahead) traction tests and does not include cornering (turning) traction.

**■ Temperature A, B, C**

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel.

Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure.

The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 109.

Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

Warning: The temperature grades for this tire are established for a tire that is properly inflated and not overloaded.

Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

### Glossary of tire terminology


Tire related term	Meaning
Cold tire inflation pressure	Tire pressure when the vehicle has been parked for three hours or more, or has not been driven more than 1 mile or 1.5 km under that condition
Maximum inflation pressure	The maximum cold inflated pressure to which a tire may be inflated, shown on the sidewall of the tire
Recommended inflation pressure	Cold tire inflation pressure recommended by a manufacturer
Accessory weight	The combined weight (in excess of those standard items which may be replaced) of transmission, power steering, power brakes, power windows, power seats, radio and heater, to the extent that these items are available as factory-installed equipment (whether installed or not)
Curb weight	The weight of a motor vehicle with standard equipment, including the maximum capacity of fuel, oil and coolant, and if so equipped, air conditioning and additional weight optional engine
Maximum loaded vehicle weight	The sum of: (a) Curb weight (b) Accessory weight (c) Vehicle capacity weight (d) Production options weight

Tire related term	Meaning
Normal occupant weight	150 lb. (68 kg) times the number of occupants specified in the second column of Table 1* that follows
Occupant distribution	Distribution of occupants in a vehicle as specified in the third column of Table 1* below
Production options weight	The combined weight of installed regular production options weighing over 5 lb. (2.3 kg) in excess of the standard items which they replace, not previously considered in curb weight or accessory weight, including heavy duty brakes, ride levelers, roof rack, heavy duty battery, and special trim
Rim	A metal support for a tire or a tire and tube assembly upon which the tire beads are seated
Rim diameter (Wheel diameter)	Nominal diameter of the bead seat
Rim size designation	Rim diameter and width
Rim type designation	The industry manufacturer's designation for a rim by style or code
Rim width	Nominal distance between rim flanges
Vehicle capacity weight (Total load capacity)	The rated cargo and luggage load plus 150 lb. (68 kg) times the vehicle's designated seating capacity
Vehicle maximum load on the tire	The load on an individual tire that is determined by distributing to each axle its share of the maximum loaded vehicle weight, and dividing by two
Vehicle normal load on the tire	The load on an individual tire that is determined by distributing to each axle its share of curb weight, accessory weight, and normal occupant weight (distributed in accordance with Table 1* below), and dividing by two

Tire related term	Meaning
Weather side	The surface area of the rim not covered by the inflated tire
Bead	The part of the tire that is made of steel wires, wrapped or reinforced by ply cords and that is shaped to fit the rim
Bead separation	A breakdown of the bond between components in the bead
Bias ply tire	A pneumatic tire in which the ply cords that extend to the beads are laid at alternate angles substantially less than 90 degrees to the centerline of the tread
Carcass	The tire structure, except tread and sidewall rubber which, when inflated, bears the load
Chunking	The breaking away of pieces of the tread or sidewall
Cord	The strands forming the plies in the tire
Cord separation	The parting of cords from adjacent rubber compounds
Cracking	Any parting within the tread, sidewall, or innerliner of the tire extending to cord material
CT	A pneumatic tire with an inverted flange tire and rim system in which the rim is designed with rim flanges pointed radially inward and the tire is designed to fit on the underside of the rim in a manner that encloses the rim flanges inside the air cavity of the tire
Extra load tire	A tire designed to operate at higher loads and at higher inflation pressures than the corresponding standard tire
Groove	The space between two adjacent tread ribs
Innerliner	The layer(s) forming the inside surface of a tubeless tire that contains the inflating medium within the tire



Tire related term	Meaning
Innerliner separation	The parting of the innerliner from cord material in the carcass
Intended outboard sidewall	(a)The sidewall that contains a whitewall, bears white lettering, or bears manufacturer, brand, and/or model name molding that is higher or deeper than the same molding on the other sidewall of the tire, or (b)The outward facing sidewall of asymmetrical tire that has a particular side that must always face outward when mounted on a vehicle
Light truck (LT) tire	A tire designated by its manufacturer as primarily intended for use on lightweight trucks or multipurpose passenger vehicles
Load rating	The maximum load that a tire is rated to carry for a given inflation pressure
Maximum load rating	The load rating for a tire at the maximum permissible inflation pressure for that tire
Maximum permissible inflation pressure	The maximum cold inflation pressure to which a tire may be inflated
Measuring rim	The rim on which a tire is fitted for physical dimension requirements
Open splice	Any parting at any junction of tread, sidewall, or innerliner that extends to cord material
Outer diameter	The overall diameter of an inflated new tire
Overall width	The linear distance between the exteriors of the sidewalls of an inflated tire, including elevations due to labeling, decorations, or protective bands or ribs
Passenger car tire	A tire intended for use on passenger cars, multipurpose passenger vehicles, and trucks, that have a gross vehicle weight rating (GVWR) of 10,000 lb. or less

Tire related term	Meaning
Ply	A layer of rubber-coated parallel cords
Ply separation	A parting of rubber compound between adjacent plies
Pneumatic tire	A mechanical device made of rubber, chemicals, fabric and steel or other materials, that, when mounted on an automotive wheel, provides the traction and contains the gas or fluid that sustains the load
Radial ply tire	A pneumatic tire in which the ply cords that extend to the beads are laid at substantially 90 degrees to the centerline of the tread
Reinforced tire	A tire designed to operate at higher loads and at higher inflation pressures than the corresponding standard tire
Section width	The linear distance between the exteriors of the sidewalls of an inflated tire, excluding elevations due to labeling, decoration, or protective bands
Sidewall	That portion of a tire between the tread and bead
Sidewall separation	The parting of the rubber compound from the cord material in the sidewall
Snow tire	A tire that attains a traction index equal to or greater than 110, compared to the ASTM E-1136 Standard Reference Test Tire, when using the snow traction test as described in ASTM F-1805-00, Standard Test Method for Single Wheel Driving Traction in a Straight Line on Snow-and Ice-Covered Surfaces, and which is marked with an Alpine Symbol (  ) on at least one sidewall
Test rim	The rim on which a tire is fitted for testing, and may be any rim listed as appropriate for use with that tire

Tire related term	Meaning
Tread	That portion of a tire that comes into contact with the road
Tread rib	A tread section running circumferentially around a tire
Tread separation	Pulling away of the tread from the tire carcass
Treadwear indicators(TWI)	The projections within the principal grooves designed to give a visual indication of the degrees of wear of the tread
Wheel-holding fixture	The fixture used to hold the wheel and tire assembly securely during testing

\*:Table 1 — Occupant loading and distribution for vehicle normal load for various designated seating capacities

Designated seating capacity, Number of occupants	Vehicle normal load, Number of occupants	Occupant distribution in a normally loaded vehicle
2 through 4	2	2 in front
5 through 10	3	2 in front, 1 in second seat
11 through 15	5	2 in front, 1 in second seat, 1 in third seat, 1 in fourth seat
16 through 20	7	2 in front, 2 in second seat, 2 in third seat, 1 in fourth seat

### Customizable features

Your vehicle includes a variety of electronic features that can be personalized to your preferences. Programming these preferences requires specialized equipment and may be performed by an authorized Toyota dealership.

Some function settings are changed simultaneously with other functions being customized. Contact your Toyota dealer for further details.

Item	Function	Default setting	Customized setting
Wireless remote control (→P. 32)	Operation signal (Buzzer)	ON	OFF
Seat Belt Reminder Buzzer (→P. 444)	Vehicle speed linked seat belt reminder buzzer	ON	OFF

## 6-2. Customization

### Items to initialize

The following items must be initialized for normal system operation in cases such as after the battery is reconnected, or maintenance is performed on the vehicle.

Item	When to initialize	Reference
Engine oil maintenance data	After changing engine oil	P. 377
Tire pressure warning system	<ul style="list-style-type: none"><li>• When rotating the tires on vehicles differing with front and rear tire inflation pressures.</li><li>• When changing the tire inflation pressure by changing traveling speed or load weight, etc.</li><li>• When changing the tire size.</li></ul>	P. 389

