# Part 2 INFORMATION BEFORE DRIVING YOUR TOYOTA

- Break-in period
- Fuel
- Operation in foreign countries
- Three-way catalytic converter
- Engine exhaust cautions
- Facts about engine oil consumption
- Twin ground electrode spark plugs
- Brake system
- Brake pad wear limit indicators
- Luggage stowage precautions
- Your Toyota's identification
- Theft prevention labels
- Suspension and chassis
- Types of tires

### Break-in period

### Drive gently and avoid high speeds.

Your vehicle does not need an elaborate break-in. But following a few simple tips for the first 1600 km (1000 miles) can add to the future economy and long life of your vehicle:

- Do not drive over 88 km/h (55 mph).
- Run the engine at moderate speed between 2000 and 4000 rpm.
- Avoid full-throttle starts.
- Try to avoid hard stops during the first 300 km (200 miles).
- Do not drive slowly with the manual transmission in a high gear.
- Do not drive for a long time at any single speed, either fast or slow.
- Do not tow a trailer during the first 800 km (500 miles).

### Fuel

### **FUEL TYPE**

### Your new vehicle must use only unleaded gasoline.

To help prevent gas station mix-ups, your Toyota has a new smaller fuel tank opening. The special nozzle on pumps with unleaded fuel will fit it, but the larger standard nozzle on pumps with leaded gas will not.

At a minimum, the gasoline you use should meet specifications of ASTM D4814 in the U.S.A. and CGSB 3.5-M93 in Canada.

### **NOTICE**

Do not use leaded gasoline. Use of leaded gasoline will cause the three-way catalytic converter to lose its effectiveness and the emission control system to function improperly. Also, this can increase maintenance costs.

#### OCTANE NUMBER

# Select Octane Rating 87 (Research Octane Number 91) or higher.

Use of unleaded fuel with an octane number or rating lower than stated above will cause persistent heavy knocking. If severe, this will lead to engine damage.

### If your engine knocks...

If you detect heavy knocking even when using the recommended fuel, or if you hear steady knocking while holding a steady speed on level roads, consult your Tovota dealer.

However, now and then, you may notice light knocking for a short time while accelerating or driving up hills. This is no need of concern.

# GASOLINES CONTAINING DETERGENT ADDITIVES

Toyota recommends use of gasolines that contain detergent additives to avoid build-up of engine deposits.

For further details, ask your Toyota dealer or a local gasoline retailer.

#### **IMPROVED GASOLINES**

The American Automobile Manufacturers Association (AAMA) has developed a specification of improved gasolines. The AAMA specification offers optimal fuel information for better vehicle performance and better protection of your engine.

Toyota recommends the use of gasolines that meet the AAMA specification, if available, for improved driveability and emission control system.

### **GASOLINES CONTAINING MTBE**

Gasolines that contain MTBE (Methyl Tertiary-Butyl Ether) are available in the market. If you use a gasoline mixed with MTBE, make certain that it does not contain more than 15% of MTBE.

#### **GASOLINES CONTAINING MMT**

Some gasolines contain an octane-enhancing additive called MMT (methylcy-clopentadienyl manganese tricarbonyl).

Toyota does not recommend the use of gasolines that contain MMT. If fuels containing MMT are 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.

### **GASOLINES CONTAINING ALCOHOL**

If you use gasohol in your Toyota, be sure that it is unleaded, has an octane rating no lower than 87 and does not contain more than 10% ethanol.

Gasohol is a mixture of gasoline and ethanol.

Toyota do not recommend the use of gasolines containing methanol. If you use gasoline containing methanol, use only gasoline meeting the requirements above and also containing less than 5% methanol with cosolvents and corrosion inhibitors for methanol.

### **GASOLINES QUALITY**

In a very few cases, you may experience driveability problems caused by the particular gasoline that you are using. If you continue to have unacceptable driveability, try changing gasoline brands. If that does not rectify your problem, then consult your Toyota dealer.

### NOTICE

- ◆ Do not use gasohol other than stated above. It will cause fuel system damage or vehicle performance problems.
- ◆ If driveability problems occur (poor hot starting, vaporizing, engine knock, etc.), discontinue the use.
- ◆ Take care not to spill gasohol during refueling. Gasohol may cause paint damage.

### **FUEL TANK CAPACITY**

50 L (13.2 gal., 11.0 lmp. gal.)

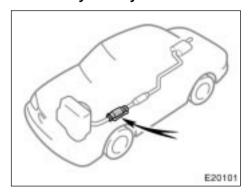
# Operation in foreign countries

If you plan to drive your Toyota in another country...

First, comply with the vehicle registration laws.

**Second**, confirm the availability of the correct fuel (unleaded and minimum octane number).

### Three-way catalytic converter



The three-way catalytic converter is an emission control device installed in the exhaust system.

The purpose is to reduce pollutants in the exhaust gas.

# **CAUTION**

- Keep people and combustible materials away from the exhaust pipe while the engine is running. The exhaust gas is very hot.
- Do not drive, idle or park your vehicle over anything that might burn easily such as grass, leaves, paper or rags.

### **NOTICE**

A large amount of unburned gases flowing into the three-way catalytic converter may cause it to overheat and create a fire hazard. To prevent this and other damage, observe the following precautions:

- ◆ Use only unleaded gasoline.
- ◆ Do not drive with an extremely low fuel level; running out of fuel could cause the engine to misfire, creating an excessive load on the threeway catalytic converter.
- ◆ Do not allow the engine to run at idle speed for more than 20 minutes.
- ◆ Avoid racing the engine.
- ◆ Do not push-start or pull-start your vehicle.
- ◆ Do not turn off the ignition while the vehicle is moving.

- ◆ Keep your engine in good running order. Malfunctions in the engine electrical system, electronic ignition system/distributor ignition system or fuel system could cause an extremely high three-way catalytic converter temperature.
- ◆If the engine becomes difficult to start or stalls frequently, take your vehicle in for a check-up as soon as possible. Remember, your Toyota dealer knows your vehicle and its three-way catalytic converter system best.
- ◆ To ensure that the three-way catalytic converter and the entire emission control system operate properly, your vehicle must receive the periodic inspections required by the Toyota Maintenance Schedule. For scheduled maintenance information, refer to the separate "Scheduled Maintenance Guide" or "Owner's Manual Supplement".

### **Engine exhaust cautions**

### CAUTION

- Avoid inhaling the engine exhaust. It contains carbon monoxide, which is a colorless and odorless gas. It can cause unconsciousness or even death.
- Make sure the exhaust system has no holes or loose connections. The system should be checked from time to time. If you hit something, or notice a change in the sound of the exhaust, have the system checked immediately.
- Do not run the engine in a garage or enclosed area except for the time needed to drive the vehicle in or out. The exhaust gases cannot escape, making this a particularly dangerous situation.
- Do not remain for a long time in a parked vehicle with the engine running. If it is unavoidable, however, do so only in an unconfined area and adjust the heating or cooling system to force outside air into the vehicle.

- Keep the trunk lid closed while driving. An open or unsealed trunk lid may cause exhaust gases to be drawn into the vehicle.
- To allow proper operation of your vehicle's ventilation system, keep the inlet grilles in front of the windshield clear of snow, leaves, or other obstructions.
- If you smell exhaust fumes in the vehicle, drive with the windows open and the trunk lid closed. Have the cause immediately located and corrected.

# Facts about engine oil consumption

### **FUNCTIONS OF ENGINE OIL**

Engine oil has the primary functions of lubricating and cooling the inside of the engine, and plays a major role in maintaining the engine in proper working order.

### **ENGINE OIL CONSUMPTION**

It is normal that an engine should consume some engine oil during normal engine operation. The causes of oil consumption in a normal engine are as follows.

• Oil is used to lubricate pistons, piston rings and cylinders. A thin film of oil is left on the cylinder wall when a piston moves downwards in the cylinder. High negative pressure generated when the vehicle is decelerating sucks some of this oil into the combustion chamber. This oil as well as some part of the oil film left on the cylinder wall is burned by the high temperature combustion gases during the combustion process.  Oil is also used to lubricate the stems of the intake valves. Some of this oil is sucked into the combustion chamber together with the intake air and is burned along with the fuel. High temperature exhaust gases also burn the oil used to lubricate the exhaust valve stems.

The amount of engine oil consumed depends on the viscosity of the oil, the quality of the oil and the conditions the vehicle is driven under.

More oil is consumed by high-speed driving and frequent acceleration and deceleration.

A new engine consumes more oil, since its pistons, piston rings and cylinder walls have not become conditioned.

When judging the amount of oil consumption, note that the oil may become diluted and make it difficult to judge the true level accurately.

As an example, if a vehicle is used for repeated short trips, and consumes a normal amount of oil, the dipstick may not show any drop in the oil level at all, even after 1000 km (600 miles) or more. This is because the oil is gradually becoming diluted with fuel or moisture, making it appear that the oil level has not changed.

The diluting ingredients evaporate out when the vehicle is then driven at high speeds, as on an express way, making it appear that oil is excessively consumed after driving at high speeds.

# IMPORTANCE OF ENGINE OIL LEVEL CHECK

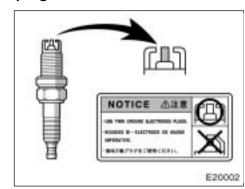
One of the most important points in proper vehicle maintenance is to keep the engine oil at the optimum level so that oil function will not be impaired. Therefore, it is essential that the oil level be checked regularly. Toyota recommends that the oil level be checked every time you refuel the vehicle.

### NOTICE

Failure to check the oil level regularly could lead to serious engine trouble due to insufficient oil.

For detailed information on oil level check, see "Checking the engine oil level" in Chapter 7-2.

# Twin ground electrode spark plugs



Your engine is fitted with twin ground electrode spark plugs.

### **NOTICE**

Use only twin ground electrode spark plugs for your engine performance.

### Brake system

# TANDEM MASTER CYLINDER BRAKE SYSTEM

The tandem master cylinder brake system is a hydraulic system with two separate sub-systems. If either sub-system should fail, the other will still work. However, the pedal will be harder to press, and your stopping distance will be longer. Also, the brake system warning light may come on.

# **CAUTION**

Do not drive your vehicle with only a single brake system. Have your brakes fixed immediately.

#### **BRAKE BOOSTER**

The brake booster uses engine vacuum to power-assist the brakes. If the engine should quit while you are driving, you can bring the vehicle to a stop with normal pedal pressure. There is enough reserve vacuum for one or two stops—but no more!

# **CAUTION**

- Do not pump the brake pedal if the engine stalls. Each push on the pedal uses up your vacuum reserve.
- Even if the power assist is completely lost, the brakes will still work. But you will have to push the pedal hard—much harder than normal. And your braking distance will be longer.

# ANTI-LOCK BRAKE SYSTEM (with "ABS" warning light)

The anti-lock brake system is designed to automatically help prevent lock-up of the wheels during sudden braking or braking on slippery road surfaces. This assists in providing directional stability and steering performance of the vehicle under these circumstances.

The anti-lock brake system becomes operative after the vehicle has accelerated to a speed in excess of approximately 10 km/h (6 mph). It stops operating when the vehicle decelerate to a speed below approximately 5 km/h (3 mph).

You may hear a sound in the engine compartment for a few seconds when the engine is started or just after the vehicle is started. This means that the anti-lock brake system is in the self check mode, and does not indicate a malfunction.

Effective way to press the "ABS" brake pedal: When the anti-lock brake system function is in action, you may feel the brake pedal pulsating and hear a noise. In this situation, to let the anti-lock brake system work for you, just hold the brake pedal down more firmly. Do not pump the brake in a panic stop. Pumping the brake pedal makes the stopping distance longer.

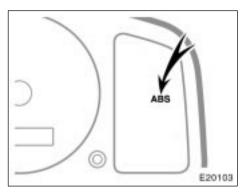
The brake pedal pulsation caused by the anti-lock brake system may indicate haz-ardous road surface conditions. Although the anti-lock brake system assists in providing vehicle control, it is still important to drive with all due care, because the anti-lock brake system cannot overcome the laws of physics that act on your vehicle:

 Braking capability is dependent on tire friction with the road surface.

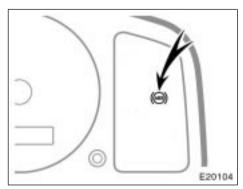
- Even though the anti-lock brake system is operating, a driver cannot maintain full control on certain slippery road surfaces, when cornering at high speeds, or in violent maneuvers.
- Avoid high speeds on wet roads. The anti-lock brake system cannot eliminate the risk of hydroplaning and loss of tire friction.

Always maintain a safe distance from the vehicle in front of you. Compared with vehicles not fitted with an anti-lock brake system, your vehicle may require a longer stopping distance in the following cases:

- Driving on rough, gravel or snow-covered roads.
- Driving with tire chains installed.
- Driving on roads where the road surface is pitted or has other differences in surface height.



Type A



Type B

### "ABS" warning light

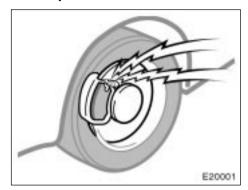
The light comes on when the ignition key is turned to the "ON" position. After a few seconds, the light will go off.

If either of the following conditions occurs, this indicates a malfunction somewhere in the parts monitored by the warning light system. Contact your Toyota dealer as soon as possible to service the vehicle.

- The light does not come on as described above, or remains on.
- The light comes on while driving.

Even if the anti-lock brake system should fail, the brake system will still operate conventionally. However, when the "ABS" warning light is on (and the brake system warning light is off), the anti-lock brake system is not assisting brake performance so that the wheels can lock-up during sudden braking or braking on slippery road surfaces. Have your vehicle checked by your Toyota dealer as soon as possible.

### Brake pad wear limit indicators



The brake pad wear limit indicators on your disc brakes give a warning noise when the brake pads are worn to where replacement is required.

If you hear a squealing or scraping noise while driving, have the brake pads checked and replaced by your Toyota dealer as soon as possible. Expensive rotor damage can result if the pads are not replaced when necessary.

### Luggage stowage precautions

When stowing luggage or cargo in the vehicle, observe the following:

- Put luggage or cargo in the trunk when at all possible. Be sure all items are secured in place.
- Be careful to keep the vehicle balanced. Locating the weight as far forward as possible helps maintain balance.
- For better fuel economy, do not carry unneeded weight.

# CAUTION

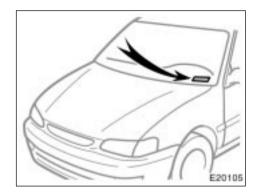
 To prevent luggage or packages from sliding forward during braking, do not stack anything in the enlarged trunk. Keep luggage or packages low, as close to the floor as possible.

- Never allow anyone to ride in the enlarged trunk. It is not designed for passengers. They should ride in their seats with their seat belts properly fastened. Otherwise, they are much more likely to suffer serious bodily injury, in the event of sudden braking or a collision.
- Do not place anything on the filler panel behind the rear seatback or luggage cover. Such items may be thrown about and possibly injure people in the vehicle during sudden braking or an accident.
- Do not drive with objects left on top of the instrument panel. They may interfere with the driver's field of view. Or they may move during sharp vehicle acceleration or turning, and impair the driver's control of the vehicle. In an accident they may injure the vehicle occupants.

### NOTICE

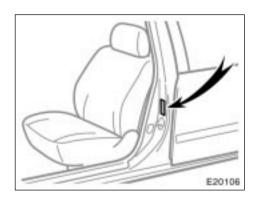
Do not load the vehicle beyond the vehicle capacity weight specified in Part 8.

### Your Toyota's identification— -Vehicle identification number



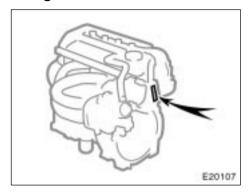
The vehicle identification number (VIN) is the legal identifier for your vehicle. This number is on the left top of the instrument panel, and can be seen through the windshield from outside.

This is the primary identification number for your Toyota. It is used in registering the ownership of your vehicle.



The vehicle identification number (VIN) is also on the Certification Label.

## -Engine number



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

# Theft prevention labels (except for Canada)

Your new vehicle carries theft prevention labels which are approximately 56 mm (2.20 in.) by 16 mm (0.63 in.).

The purpose of these labels is to reduce the incidence of vehicle thefts by facilitating the tracing and recovery of parts from stolen vehicles. The label is designed so that once it is applied to a surface, any attempt to remove it will result in destroying the integrity of the label. Transferring these labels intact from one part to another, will be impossible.

### NOTICE

You should not attempt to remove the theft prevention labels as it may violate certain state or federal laws.

### Suspension and chassis



Do not modify the suspension/chassis with lift kits, spacers, springs, etc. It can cause dangerous vehicle handling characteristics, resulting in loss of control.

### Types of tires

Determine what kind of tires your vehicle is originally equipped with.

### 1. Summer tires

Summer tires are high-speed capability tires best suited to highway driving under dry conditions.

Since summer tires do not have the same traction performance as snow tires, summer tires are inadequate for driving on snow-covered or icy roads. For driving on snow-covered or icy roads, we recommend using snow tires. If installing snow tires, be sure to replace all four tires.

### 2. All season tires

All season tires are designed to provide better traction in snow and to be adequate for driving in most winter conditions, as well as for use all year round.

All season tires, however, do not have adequate traction performance compared with snow tires in heavy or loose snow. Also, all season tires fall short in acceleration and handling performance compared with summer tires in highway driving.

# **CAUTION**

- Do not mix summer and all season tires on your vehicle as this can cause dangerous handling characteristics, resulting in loss of control.
- Do not use tires other than the manufacturer's designated tires, and do not mix tires or wheels of the sizes different from the originally equipped tires and wheels.