

# OUTSIDE VEHICLE

## GENERAL MAINTENANCE

9900V-14

Performing these maintenance checks on the vehicle is the owner's responsibility. The owner may perform the maintenance or take the vehicle to a service center.

Check the parts of the vehicle described below on a daily basis. In most cases, special tools are not required. It is recommended that the owner perform these checks.

The procedures for general maintenance are as follows.

### 1. GENERAL NOTES

- Maintenance requirements vary depending on the country.
- Check the maintenance schedule in the owner's manual supplement.
- Following the maintenance schedule is mandatory.
- Determine the appropriate time to service the vehicle using either miles driven or time (month) elapsed, whichever reaches the specification first.
- Maintain similar intervals between periodic maintenance unless noted.
- Failing to check each vehicle part could lead to poor engine performance and increase exhaust emissions.

### 2. TIRES

- (a) Check the tire pressure with a gauge. Make adjustments if necessary.
- (b) Check the surfaces of tires for cuts, damage or excessive wear.

### 3. WHEEL NUTS

- (a) Check for nuts that are loose or missing. Tighten them if necessary.

### 4. TIRE ROTATION

- (a) Check the maintenance schedule in the owner's manual supplement.

### 5. WINDSHIELD WIPER BLADES

- (a) Check the blades for wear or cracks when they are unable to wipe the windshield clean. Replace them if necessary.

### 6. FLUID LEAKS

- (a) Check under the vehicle for leaking fuel, oil, water and other fluids.
- (b) If you smell gasoline fumes or notice any leaks, the cause and correct it.

### 7. DOORS AND ENGINE HOOD

- (a) All of the doors and the tailgate operate smoothly, and that all the latches lock securely.
- (b) When the primary latch is released, check if the engine hood secondary latch prevents the hood from opening.

# INSIDE VEHICLE

9900W-14

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### 2. LIGHTS

- (a) Check if that the headlights, stop lights, taillights, turn signal lights, and other lights illuminate or blink. Also, check if they have enough brightness.
- (b) Check if the headlights are aimed properly.

### 3. WARNING LIGHTS AND BUZZERS

- (a) Check that all the warning lights and buzzers are working.

### 4. HORN

- (a) Check that the horn is working.

### 5. WINDSHIELD GLASS

- (a) Check for scratches, pits or abrasions.

### 6. WINDSHIELD WIPER AND WASHER

- (a) Check if the wind washers are aimed properly. Also, check if the washer fluid hits the center of the operating range of each wiper on the windshield.
- (b) Check if the wipers streak or not.

### 7. WINDSHIELD DEFROSTER

- (a) When the heater or air conditioner is on the defroster setting, check if air comes out of the defroster outlet.

### 8. REAR VIEW MIRROR

- (a) Check that the rear view mirror is securely mounted.

### 9. SUN VISORS

- (a) Check that the sun visors move freely and are securely mounted.

### 10. STEERING WHEEL

- (a) Check that the steering wheel has the proper freeplay. Also check for steering difficulty, freeplay in the steering wheel and unusual noises.

### 11. SEATS

- (a) Check if the seat adjusters, seatback recliner and other front seat controls operate smoothly.
- (b) Check that all the latches lock securely in all positions.
- (c) Check that the locks hold securely in all latched positions.
- (d) Check that the head restraints move up and down smoothly and that the locks hold securely in all latched positions.
- (e) When the rear seatbacks are folded down, check if the latches lock securely.

**12. SEAT BELTS**

- (a) Check that the seat belt system such as the buckles, retractors and anchors operate properly and smoothly.
- (b) Check that the belt webbing is not cut, frayed, worn or damaged.

**13. ACCELERATOR PEDAL**

- (a) Check the pedal for smooth operation, uneven pedal effort and catching.

**14. CLUTCH PEDAL (See page 42-2)**

- (a) Check the pedal for smooth operation.
- (b) Check that the pedal has the proper freeplay.

**15. BRAKE PEDAL (See page 32-6)**

- (a) Check the pedal for smooth operation.
- (b) Check that the pedal has the proper reserve distance and freeplay.
- (c) Start the engine and check the brake booster function.

**16. BRAKES**

- (a) In a safe place, check that the vehicle remains straight when applying the brakes.

**17. PARKING BRAKE (See page 33-2)**

- (a) Check that the lever has the proper range of motion.
- (b) On a low incline, check if the parking brake alone can stabilize the vehicle.

**18. AUTOMATIC TRANSAXLE "PARK" MECHANISM**

- (a) Check the lock release button of the selector lever for proper and smooth operation.
- (b) On a low incline, check if the parking brake alone can stabilize the vehicle.

## UNDER HOOD

9900X-13

### GENERAL MAINTENANCE

#### 1. GENERAL NOTES

- Maintenance requirements vary depending on the country.
- Check the maintenance schedule in the owner's manual supplement.
- Following the maintenance schedule is mandatory.
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- Maintain similar intervals between periodic maintenance unless noted.
- Failing to check each vehicle part could lead to poor engine performance and increase exhaust emissions.

#### 2. WINDSHIELD WASHER FLUID

- (a) Check that there is sufficient fluid in the tank.

#### 3. ENGINE COOLANT LEVEL

- (a) Check that the coolant level is between the "FULL" and "LOW" lines on the see-through reservoir.

#### 4. RADIATOR AND HOSES

- (a) Check that the front of the radiator is clean and free of leaves, dirt and bugs.
- (b) Check the hoses for cracks, kinks, rotting loose connections.

#### 5. BATTERY ELECTROLYTE LEVEL

- (a) By rocking the vehicle, check that the electrolyte level of all the battery cells is between the upper and lower lines on the case.

#### 6. BRAKE FLUID LEVEL

- (a) Check that the brake fluid levels are near the upper level line on the see-through reservoirs.

#### 7. ENGINE DRIVE BELT

- (a) Check the drive belt for fraying, cracks, wear and oiliness.

#### 8. ENGINE OIL LEVEL

- (a) Check if the level of engine oil is between "F" and "L" on the dipstick with the engine turned off.

#### 9. POWER STEERING FLUID LEVEL

- (a) Check the level on the dipstick.
- (b) The level should be in the "HOT" or "COLD" range depending on the fluid temperature.

#### 10. AUTOMATIC TRANSMISSION FLUID LEVEL

- (a) Park the vehicle on a level surface.
- (b) With the engine idling and the parking brake applied, shift the selector into all the positions from "P" to "L". Then shift to the "P" position.
- (c) Pull out the dipstick and wipe off the fluid with a clean shop rag. Re-insert the dipstick and check that the fluid level is in the "HOT" range.
- (d) Perform this check with the fluid at the normal driving temperature: 70 to 80°C (158 to 176°F).

#### HINT:

After extended driving under harsh conditions (high speeds, hot weather, heavy traffic or pulling a trailer), let the engine cool down for approximately 30 minutes before checking the fluid level.

#### 11. EXHAUST SYSTEM

- (a) Check for unusual exhaust sounds or abnormal exhaust fumes. Locate the cause and correct it.

# ENGINE

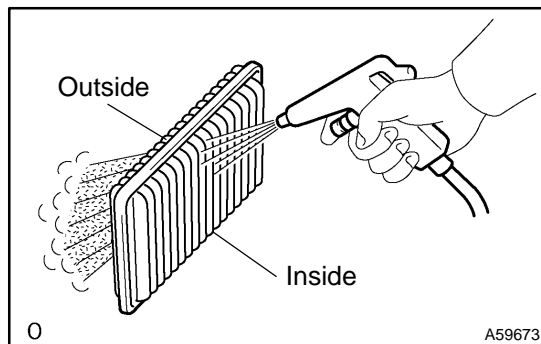
## ON-VEHICLE INSPECTION

9900Y-13

### HINT:

Inspect these items on a cooled down engine.

1. **INSPECT DRIVE BELT (See page 14-4)**
2. **REPLACE SPARK PLUGS (See page 18-1)**



### 3. INSPECT AIR FILTER

- (a) Remove the air filter.
- (b) Visually check that the air filter is not excessively damaged, dirty or oily.

Replace the air filter if necessary.

- (c) Clean the filter with compressed air.  
First blow from the inside of the filter thoroughly then repeat from the outside.
- (d) Reinstall the air filter.

### 4. REPLACE AIR FILTER

- (a) Replace the air filter with a new one.

### 5. REPLACE ENGINE OIL AND OIL FILTER (See page 17-10)

### 6. REPLACE ENGINE COOLANT (See page 16-7)

### 7. INSPECT GASKET IN FUEL TANK CAP (See page 12-1)

### 8. INSPECT FUEL LINES AND CONNECTIONS, FUEL TANK VAPOR VENT SYSTEM HOSES AND FUEL TANK BANDS

- (a) Visually check the fuel lines for cracks, leakage, loose connections, deformation and tank band looseness.

### 9. INSPECT EXHAUST PIPES AND MOUNTINGS

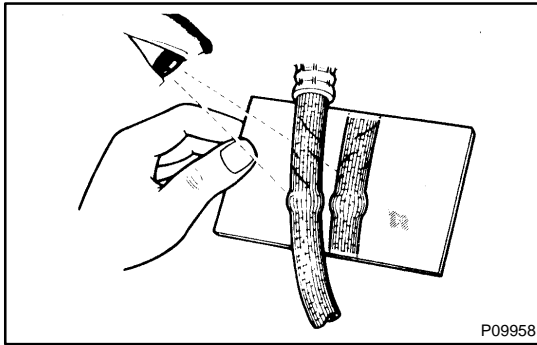
- (a) Visually check the pipes, hangers and connections for severe corrosion, leaks and damage.

### 10. INSPECT VALVE CLEARANCE (See page 14-5)

# BRAKE

## ON-VEHICLE INSPECTION

9900Z-11



### 1. INSPECT BRAKE LINE PIPES AND HOSES

#### HINT:

Work in a well-lighted area. Turn the front wheels fully to the right or left before beginning.

- (a) Check all the brake lines and hoses for:
- Damage
  - Wear
  - Deformation
  - Cracks
  - Corrosion
  - Leaks
  - Bends
  - Twists
- (b) Check all the clamps for tightness and the connections for leakage.
- (c) Check that the hoses and lines are not near sharp edges, moving parts and the exhaust system.
- (d) Check that the lines are installed pass through the center of the grommets.

### 2. INSPECT FRONT BRAKE PADS AND DISCS (See page 32-25)

### 3. INSPECT REAR BRAKE LININGS AND DRUMS (See page 32-31)

### 4. INSPECT OR CHANGE BRAKE FLUID (See page 32-4)

Fluid: SAE J1703 or FMVSS No.116 DOT3

# CHASSIS

9901A-07

## ON-VEHICLE INSPECTION

### 1. INSPECT STEERING LINKAGE

- (a) Check the steering wheel freeplay (See page 50-3).
- (b) Check the steering linkage for looseness or damage.
  - (1) Check that the tie rod ends do not have excessive play.
  - (2) Check that the dust seals and boots are not damaged.
  - (3) Check that the boot clamps are not loose.

### 2. INSPECT STEERING GEAR HOUSING OIL

- (a) Check the steering gear housing for oil leakage.

If oil is leaking, find the cause and repair it.

### 3. INSPECT BALL JOINTS AND DUST COVERS

- (a) Inspect the ball joints for excessive looseness.
  - (1) Jack up the front of the vehicle and place wooden blocks with a height of 180 to 200 mm (7.09 to 7.87 in.) under the front tires.
  - (2) Lower the vehicle until the front coil spring has about half its ordinary load. Place stands under the vehicle for safety.
  - (3) Check that the front wheels are pointing straight ahead. Use chocks.
  - (4) Using a lever, pry up the end of the lower arm. Check the amount of play.

**Maximum ball joint vertical play: 0 mm (0 in.)**

If there is any play, replace the ball joint.

- (b) Check the dust cover for damage.

### 4. INSPECT DRIVE SHAFT BOOTS

- (a) Check the drive shaft boots for loose clamps, grease leakage, kink or damage.

### 5. CHECK TRANSAXLE OIL (FLUID)

- (a) Visually check the transaxle for oil (fluid) leakage.

If oil is leaking, find the cause and repair it.

### 6. ROTATE TIRES (See page 28-1)

# BODY

9901B-10

## ON-VEHICLE INSPECTION

### 1. Canada:

#### TIGHTEN BOLTS AND NUTS ON CHASSIS AND BODY

- (a) Tighten the bolts and nuts on the chassis parts listed below, if necessary.
  - Front axle and suspension
  - Drive train
  - Rear axle and suspension
  - Brake system
  - Engine mounting
  - Other chassis parts
- (b) Tighten the bolts and nuts on the body parts listed below, if necessary.
  - Seat belt system
  - Seats
  - Doors and hood
  - Body mountings
  - Fuel tank
  - Exhaust pipe system
  - Other body parts

### 2. REPLACE AIR CONDITIONING FILTER

- (a) Remove the glove compartment assembly.
- (b) Remove the filter case from the filter outlet.
- (c) Remove the filter from the filter case.
- (d) Replace the filter with a new one.
- (e) The installation procedures are the removal procedures in reverse order.