

OUTSIDE VEHICLE

GENERAL MAINTENANCE

9900V-19

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, locate the cause and correct it.

7. DOORS AND ENGINE HOOD

- (a) Check if all of the doors and the tailgate operate smoothly and if 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-20

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2. LIGHTS

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

4. HORN

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

9. SUN VISORS

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

10. STEERING WHEEL

- (a) Check if 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 if all the latches lock securely in all positions.
- (c) Check if the locks hold securely in all latched positions.
- (d) Check if the head restraints move up and down smoothly and if 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 if the belt webbing is not cut, frayed, worn or damaged. Replace if necessary.

13. ACCELERATOR PEDAL

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

14. BRAKE PEDAL (See page 32-8)

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

15. BRAKES

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

16. 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.

17. 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

GENERAL MAINTENANCE

9900X-1B

1. GENERAL NOTES

- Maintenance items may vary from country to country. Check the owner's manual supplement in which the maintenance schedule is shown.
- Every service item in the periodic maintenance schedule must be performed.
- Periodic maintenance service must be performed according to whichever interval in the periodic maintenance schedule occurs first, the odometer reading (miles) or the time interval (months).
- Maintenance service after the last period should be performed at the same interval as before unless noted.
- Failure to do even one of the items can cause the engine to run poorly and increase the exhaust emissions.

2. WINDSHIELD WASHER FLUID

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

3. ENGINE COOLANT LEVEL

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

4. RADIATOR AND HOSES

- (a) Check if the front of the radiator is clean and not blocked by leaves, dirt or bugs.
- (b) Check the hoses for cracks, kinks, rot or loose connections.

5. BATTERY ELECTROLYTE LEVEL

- (a) Check if the electrolyte level of all the battery cells is between the upper and lower level lines on the case.

6. BRAKE FLUID LEVEL

- (a) Check if 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 or oiliness.

8. ENGINE OIL LEVEL

- (a) Check the level 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", and then shift into 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:

Wait until the engine cools down (approx. 30 min.) before checking the fluid level after extended driving at high speed, in hot weather, in heavy traffic or pulling a trailer.

11. EXHAUST SYSTEM

- (a) If any change in the sound of the exhaust or the smell of the exhaust fumes is noticed, locate and correct the cause.

ENGINE

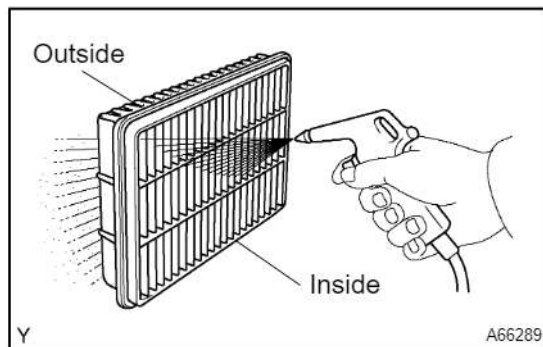
ON-VEHICLE INSPECTION

9900Y-17

HINT:

Inspect these items when the engine is cold.

1. **REPLACE TIMING BELT** (See page 1GR-FE: 14-119, 2UZ-FE: 14-296)
2. **INSPECT DRIVE BELT** (See page 1GR-FE: 14-5, 2UZ-FE: 19-46)
3. **REPLACE SPARK PLUGS** (See page 1GR-FE: 18-1, 2UZ-FE: 18-8)



4. Canada: INSPECT AIR FILTER

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

HINT:

Oiliness may indicate that the PCV valve is stuck.

If necessary, replace the air filter.

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

5. REPLACE AIR FILTER

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

6. REPLACE ENGINE OIL AND OIL FILTER (See page 1GR-FE: 17-4, 2UZ-FE: 17-24)

7. REPLACE ENGINE COOLANT (See page 1GR-FE: 16-5, 2UZ-FE: 16-17) AND INSPECT RADIATOR FIN

- (a) Check that the radiator and condenser are not blocked with leaves, dirt, or insets, and clean the hose connection.

8. INSPECT GASKET IN FUEL TANK CAP (See page 1GR-FE: 12-8, 2UZ-FE: 12-17)

9. California, Massachusetts and New York:

INSPECT CHARCOAL CANISTER (See page 1GR-FE: 12-17, 2UZ-FE: 12-17)

10. 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 or tank band looseness.

11. INSPECT EXHAUST PIPES AND MOUNTINGS

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

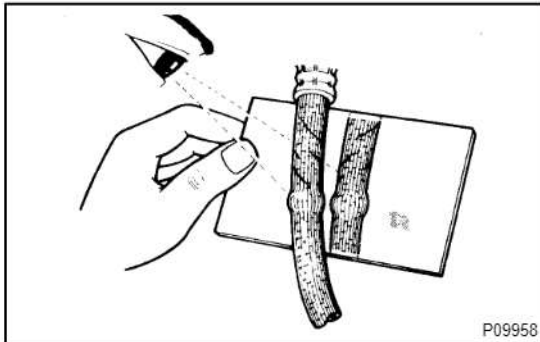
12. INSPECT VALVE CLEARANCE (See page 1GR-FE: 14-7, 2UZ-FE: 14-195)

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BRAKE

ON-VEHICLE INSPECTION

9901M-04

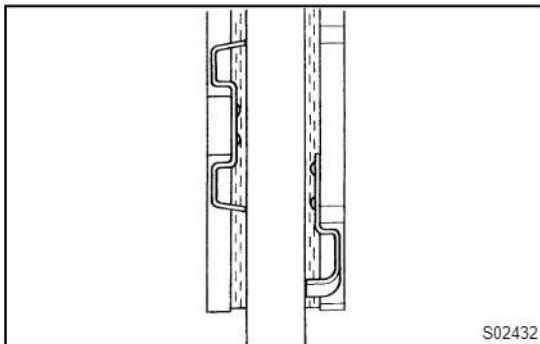


1. INSPECT BRAKE LINE PIPES AND HOSES

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 if the hoses and lines are not near sharp edges, moving parts and the exhaust system.
- (d) Check if the lines are installed pass through the center of the grommets.



2. INSPECT FRONT BRAKE PADS AND DISCS (See page 32-17)

HINT:

If a squealing or scraping noise is heard from the brake while driving, check the pad wear indicator.

If there are traces of the indicator contacting the disc rotor, the disc pad should be replaced.

3. INSPECT REAR BRAKE PADS AND DISCS (See page 32-23)
4. INSPECT REAR BRAKE LININGS AND DRUMS (See page 33-15)
5. INSPECT OR CHANGE BRAKE FLUID (See page 32-4)
Fluid: SAE J1703 or FMVSS No.116 DOT3

CHASSIS

ON-VEHICLE INSPECTION

9901N-04

1. INSPECT STEERING LINKAGE

- (a) Check the steering wheel freeplay (see page 51-3).
- (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 leakage is found, check and repair the cause.

3. INSPECT BALL JOINTS AND DUST COVERS

- (a) Inspect the ball joints for excessive looseness.
- (b) Check the dust cover for damage.

4. 4WD:

INSPECT DRIVE SHAFT BOOTS

- (a) Check the drive shaft boots for clamp looseness, oil leakage or damage.

5. CHECK OIL LEVEL IN TRANSFER (4WD) AND DIFFERENTIAL

- (a) Remove the filler plug and feel inside the hole with your finger. Check that the oil comes to within 5 mm (0.20 in.) from the bottom edge of the hole.

If the level is low, add oil until it begins to run out of the filler hole.

6. CHECK FLUID LEVEL IN AUTOMATIC TRANSMISSION (See page 40-3, 40-4)

7. LUBRICATE PROPELLER SHAFT AND TIGHTEN BOLTS

- (a) 4WD:

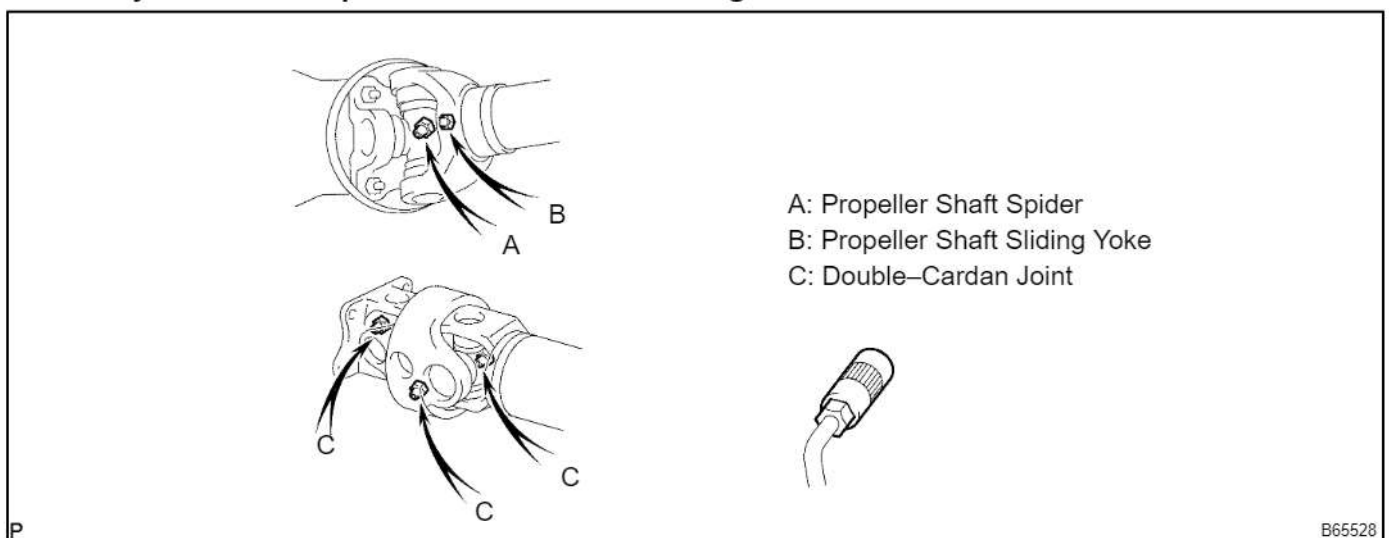
Lubricate propeller shaft, referring to the lubrication chart. Before pumping in grease, wipe off any mud and dust on the grease fitting.

Grease grade:

Spider: Lithium base chassis grease NLGI No. 2

Slide yoke and double-cardan joint:

Molybdenum disulphide lithium base chassis grease NLGI No. 2



- (b) Tighten the bolts for propeller shaft.
(2WD: See page 30-11) (4WD: See pages 30-4 and 30-11)

8. ROTATE TIRES (See page 28-1)

BODY

9901B-13

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.