

OUTSIDE VEHICLE

GENERAL MAINTENANCE

9900V-22

HINT:

These are maintenance and inspection items which are considered to be the owner's responsibility.

They can be done by the owner or they can have them done at a service shop.

These items include those which should be checked on a daily basis, those which, in most cases, do not require special tools and those which are considered to be reasonable for the owner to do.

Items and procedures for general maintenance are as follows.

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. TIRES

- (a) Check the pressure with a gauge. If necessary, make adjustment.
- (b) Check for cuts, damage or excessive wear.

3. WHEEL NUTS

- (a) When checking the tires, check the nuts for looseness or for missing nuts. If necessary, tighten them.

4. TIRE ROTATION

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

5. WINDSHIELD WIPER BLADES

- (a) Check for wear or cracks whenever they do not wipe clean. If necessary, replace them.

6. FLUID LEAKS

- (a) Check the underneath of the vehicle for leaks of fuel, oil, water or other fluid.
- (b) If you smell gasoline fumes or notice any leak, find and correct the cause.

7. DOORS AND ENGINE HOOD

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

INSIDE VEHICLE

GENERAL MAINTENANCE

9900W-23

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2. LIGHTS

- (a) Check that the headlights, stop lights, taillights, turn signal lights, and other lights are all working.
- (b) Check the headlight aiming.

3. WARNING LIGHTS AND BUZZERS

- (a) Check that all the warning lights and buzzers function properly.

4. HORN

- (a) Check that the horn works normally.

5. WINDSHIELD GLASS

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

6. WINDSHIELD WIPER AND WASHER

- (a) Check operation of the wipers and washer.
- (b) Check that the wipers do not streak.

7. WINDSHIELD DEFROSTER

- (a) Check that air comes out from the defroster outlet when operating the heater or air conditioner in the defroster mode.

8. REAR VIEW MIRROR

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

9. SUN VISORS

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

10. STEERING WHEEL

- (a) Check that the steering wheel has the specified free play. Be alert for changes in steering condition, such as hard steering, excessive free play or strange noises.

11. SEATS

- (a) Check that all the front seat controls such as seat adjusters, seatback recliner, etc. operate smoothly.
- (b) Check that all the latches lock securely in any position.
- (c) Check that the locks hold securely in any latched position.
- (d) Check that the head restraints move up and down smoothly and that the locks hold securely in any latched position.
- (e) For folding-down of the rear seatbacks, check that 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 or catching.

14. BRAKE PEDAL (See page 32-8)

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

15. BRAKES

- (a) At a safe place, check that the brakes do not pull to one side when applied.

16. PARKING BRAKE (See page 33-2)

- (a) Check that the lever has the proper travel.
- (b) On a safe incline, check that the vehicle is held securely with only the parking brake applied.

17. AUTOMATIC TRANSMISSION "PARK" MECHANISM

- (a) On a safe incline, check that the vehicle is held securely with the selector lever in the "P" position and all the brakes released.

UNDER HOOD

9900X-21

GENERAL MAINTENANCE

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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 LEVEL lines on the see-through reservoir at normal temperature (20°C (68°F)).

4. RADIATOR AND HOSES

- (a) Check that 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 the indicator.
- (b) Check that 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 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 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 after pulling a trailer.

11. EXHAUST SYSTEM

- (a) Visually inspect for cracks, holes or loose supports.

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

ENGINE

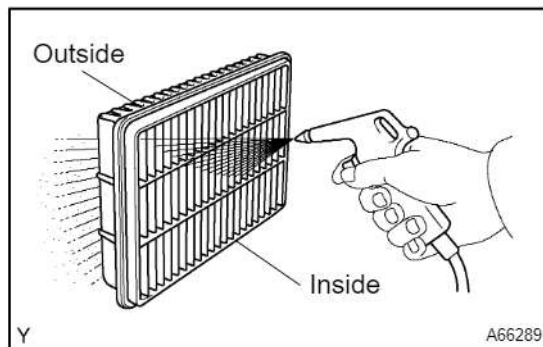
ON-VEHICLE INSPECTION

9900Y-20

HINT:

Inspect these items when the engine is cold.

1. **REPLACE TIMING BELT** (See page 2AZ-FE: 14-68 , 3MZ-FE: 14-206)
2. **INSPECT DRIVE BELT** (See page 2AZ-FE: 14-5 , 3MZ-FE: 14-125)
3. **REPLACE SPARK PLUGS** (See page 2AZ-FE: 18-1 , 3MZ-FE: 18-7)



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 2AZ-FE: 17-3 , 3MZ-FE: 17-21)

7. REPLACE ENGINE COOLANT (See page 2AZ-FE: 16-6 , 3MZ-FE: 16-26) 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 2AZ-FE: 12-6 , 3MZ-FE: 12-23)

9. INSPECT FUEL LINES AND CONNECTIONS, FUEL TANK VAPOR VENT SYSTEM HOSES AND FUEL TANK BANDS (See page 2AZ-FE: 11-1 , 3MZ-FE: 11-35)

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

10. INSPECT EXHAUST PIPES AND MOUNTINGS

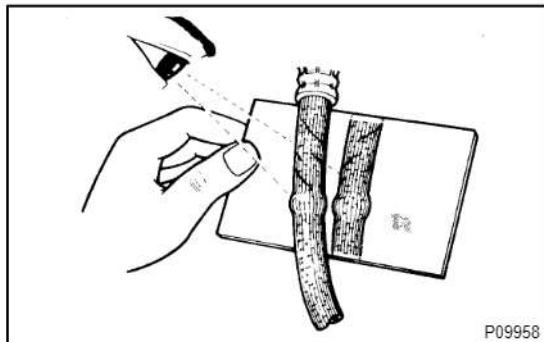
- (a) Visually check the pipes, hangers and connections for severe corrosion, leaks or damage.

11. INSPECT VALVE CLEARANCE (See page 2AZ-FE: 14-6 , 3MZ-FE: 14-127)

BRAKE

ON-VEHICLE INSPECTION

9901M-07

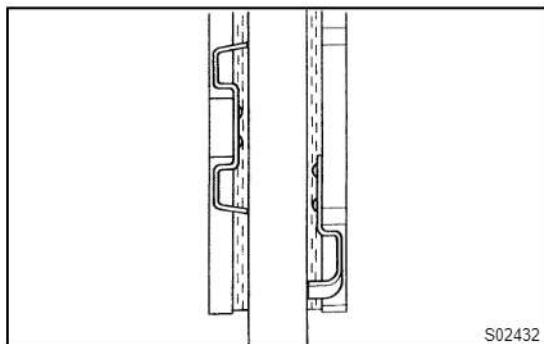


1. INSPECT BRAKE LINE PIPES AND HOSES

HINT:

Check in a well-lighted area. Check the entire circumference and length of the brake hoses using a mirror as required. Turn the front wheels fully right or left before checking the front brake.

- (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 connections for leakage.
- (c) Check that the hoses and lines are clear of sharp edges, moving parts and the exhaust system.
- (d) Check that the lines install in grommets pass through the center of the grommets.



2. INSPECT FRONT BRAKE PADS AND DISCS (See page 32-23)

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 32-29)

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

Fluid: SAE J1703 or FMVSS No.116 DOT3

CHASSIS

ON-VEHICLE INSPECTION

9902V-01

1. INSPECT STEERING LINKAGE

- (a) Check the steering linkage for looseness or damage.

Check that:

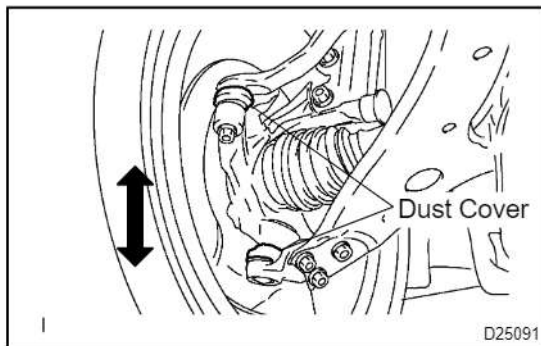
- Tie rod ends do not have excessive play.
- Dust seals and boots are not damaged.
- Boot clamps are not loose.

- (b) Inspect the dust cover for damage.

2. INSPECT STEERING GEAR HOUSING OIL

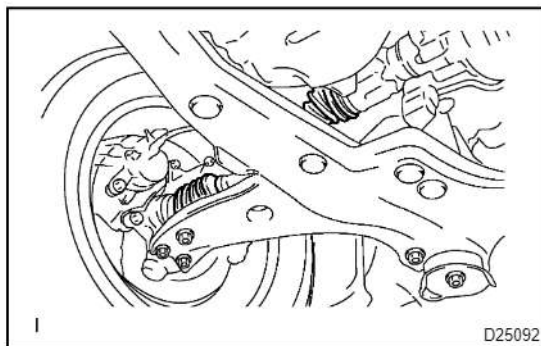
- (a) Check the steering gear housing for oil leakage.

If leakage is found, check for cause and repair it.



3. INSPECT BALL JOINTS AND DUST COVERS

- (a) Inspect the ball joints for excessive looseness.
Maximum ball joint vertical play: 0 mm (0 in.)
- (b) Check the dust cover for damage.



4. INSPECT DRIVE SHAFT BOOTS

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

5. INSPECT TRANSAXLE FLUID (See page 40-2)

6. Canada:

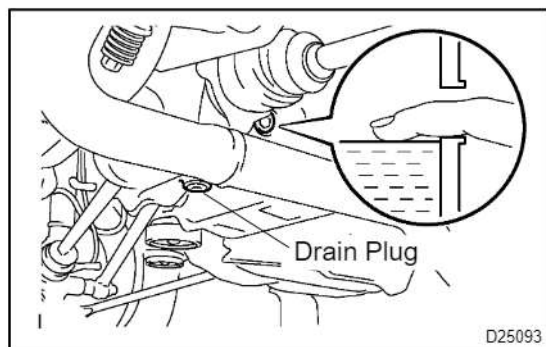
REPLACE TRANSAXLE FLUID (See page 40-2)

7. INSPECT TRANSFER OIL (See page 31-4)

8. Canada:

REPLACE TRANSFER OIL (See page 31-4)

9. INSPECT AND REPLACE LSD OIL (w/ LSD) (See page 29-5)

**10. INSPECT DIFFERENTIAL OIL (4WD only)**

- (a) Remove the filler plug and touch inside the hole with your finger. Check that the oil comes to within 5 mm (0.20 in.) of the bottom edge of the hole. If the level is low, add oil until it begins to flow out of the filler hole.

Grade: See page 29-5

11. Canada:
REPLACE DIFFERENTIAL OIL (4WD only)
(See page 29-5)
12. **ROTATE TIRES** (See page 28-1)

BODY

ON-VEHICLE INSPECTION

9901B-15

1. Canada:

TIGHTEN BOLTS AND NUTS ON CHASSIS AND BODY

- (a) Where necessary, tighten all the parts of the chassis.
 - Front axle and suspension
 - Drive train
 - Rear axle and suspension
 - Brake system
 - Engine mounting, etc.
- (b) Where necessary, tighten all the parts of the body.
 - Seat belt system
 - Seats
 - Doors and hood
 - Body mountings
 - Fuel tank
 - Exhaust pipe system, etc.

2. **REPLACE AIR CONDITIONING FILTER**

- (a) Remove the glove compartment assembly.
- (b) Remove the filter case by holding both sides.
- (c) Remove the filter from the filter case.
- (d) Replace the filter with a new one.
- (e) The installation is in the reverse order of the removal.