DAIHATSU

ROCKY

MA

MAINTENANCE

MAINTENANCE SCHEDULE ..... MA– 2
COLD ENGINE OPERATIONS ..... **MA– 7**
HOT ENGINE OPERATIONS **MA–13**
CLUTCH PEDAL **MA–15**
BRAKE LININGS AND DRUMS **MA–16**
BRAKE PADS AND DISCS **MA–16**
BRAKE LINES AND HOSES **MA–17**
STEERING LINKAGE **MA–17**
STEERING GEAR BOX **MA–18**
TRANSMISSION, TRANSFER AND DIFFERENTIAL OIL **MA–19**
WHEEL BEARING **MA–19**
STEERING KNUCKLE & LINKAGE CHASSIS GREASE **MA–20**
PROPELLER SHAFTS GREASE **MA–21**
BOLTS AND NUTS ON CHASSIS AND BODY **MA–21**

WRU90-MA001

MAINTENANCE SCHEDULE

GENERAL NOTES

Every service item in the periodic maintenance list must be performed otherwise failure to perform even one item can cause poor engine running and increased exhaust emissions.

WRU90-MA002

NORMAL CONDITION SCHEDULE

Maintenance operations:
A=Check and adjust as necessary; I=Inspection and correct or replace as necessary; R=Replace, change or lubricate.

	Service interval: [Use odometer reading or months whichever comes first.]	× 1000 miles	7.5	15	22.5	30	37.5	45	52.5	60	67.5	70	75	80	82.5	90	97.5	100	105	110	112.5	120	See page
		or Months	9	18	27	36	45	54	63	72	81	84	90	96	99	108	117	120	126	132	135	144	
ENGINE COMPONENTS AND EMISSION CONTROL SYSTEMS																							
1	Timing belt									R												R	MA– 7
2	Valve clearance*			A		A		A		A			A			A			A			A	MA–13
3	Drive belts ["V" belts]					I				I		I		I		I		I		I		I	MA– 7
4	Engine oil and oil filter*		R	R	R	R	R	R	R	R	R		R		R	R	R		R		R	R	MA–10
5	Engine coolant					R				R						R						R	MA–10
6	Catalytic converter																	I					MA–11
7	Exhaust pipes and mountings					I				I						I						I	MA–12
8	Idle speed		A			A				A						A						A	MA–14
9	Air filter*					R				R						R						R	MA– 9
10	Fuel filter					R				R						R						R	MA–12
11	Fuel lines and connections					I				I						I						I	MA–12
12	Fuel tank cap gasket					I				R						I						R	MA–12
13	Spark plug wires and distributor									I												I	MA– 9
14	Spark plugs*					R				R						R						R	MA– 7
15	Positive crankcase ventilation (PCV) system					I				I						I						I	MA–11
16	EGR system									I												I	MA–13
17	Charcoal canister																	I					MA–11
18	Oxygen sensor**	Replace at initial 80,000 miles																					MA–13
CHASSIS AND BODY																							
19	Clutch pedal			I		I		I		I			I			I			I			I	MA–16
20	Brake linings and drums			I		I		I		I			I			I			I			I	MA–16
21	Brake pads and discs			I		I		I		I			I			I			I			I	MA–17
22	Brake lines and hoses			I		I		I		I			I			I			I			I	MA–17
23	Steering linkage			I		I		I		I			I			I			I			I	MA–18
24	Steering gear box			I		I		I		I			I			I			I			I	MA–19
25	Transmission, transfer and differential oil			I		R		I		R			I			R			I			R	MA–19
26	Wheel bearing			I		I		I		I			I			I			I			I	MA–20
27	Wheel bearing grease					R				R						R						R	MA–20
28	Steering knuckle & linkage chassis grease			R		R		R		R			R			R			R			R	MA–20
29	Propeller shafts grease			R		R		R		R			R			R			R			R	MA–21
30	Bolts and nuts on chassis and body			I		I		I		I			I			I			I			I	MA–22

Performance of the maintenance services indicated by * is a condition of the Emission Control System Warranty.
See Warranty Information Book for complete warranty information.
★...Recommended in California

(NOTE)
After 120,000 miles, the maintenance services should be performed at the same intervals.

WRU92-MA070

SEVERE CONDITION SCHEDULE (1)

Follow the severe condition schedule if vehicle is operated mainly under one or more of the following severe conditions:

- Towing a trailer
- Operating when outside temperature remains below freezing
- Repeated short trips less than 5 miles
- Idling for extended periods and/or low speed operation for long distance such as police, taxi, door-to-door delivery or daily rental service
- Operating in dusty, rough, muddy or salt sprayed roads
- Operating daily for a maximum of 15 miles or less, or continuously for 30 minutes or less

Maintenance operations:
A=Check and adjust as necessary; I=Inspection and correct or replace as necessary; R=Replace, change or lubricate.

Service interval: [Use odometer reading or (months) whichever comes first.]	× 1000 miles	3.75	5	7.5	10	11.25	15	18.75	20	22.5	25	26.25	30
	or Months	4.5	6	9	12	13.5	18	22.5	24	27	30	31.5	36
ENGINE COMPONENTS AND EMISSION CONTROL SYSTEMS													
1. Timing belt													
2. Valve clearance*							A						A
3. Drive belts ("V" belts)													I
4. Engine oil and oil filter (see NOTE 1)		R		R		R	R	R		R		R	R
5. Engine coolant													R
6. Catalytic converter													
7. Exhaust pipes and mountings (see NOTE 1)							I						I
8. Idle speed		A											A
9. Air filter (see NOTE 2)*			I		I		I		I		I		R
10. Fuel filter													R
11. Fuel lines and connections													I
12. Fuel tank cap gasket													I
13. Spark plug wires and distributor													
14. Spark plugs*													R
15. Positive crankcase ventilation (PCV) system													I
16. EGR system													
17. Charcoal canister													
18. Oxygen sensor**		Replace at initial 80,000 miles											
CHASSIS AND BODY													
19. Clutch pedal				I			I			I			I
20. Brake linings and drums				I			I			I			I
21. Brake pads and discs				I			I			I			I
22. Brake lines and hoses							I						I
23. Steering linkage				I			I			I			I
24. Steering gear box							I						I
25. Transmission, transfer and differential oil				R			R			R			R
26. Wheel bearing							I						I
27. Wheel bearing grease													R
28. Steering knuckle & linkage chassis grease				R			R			R			R
29. Propeller shafts grease				R			R			R			R
30. Bolts and nuts on chassis and body (see NOTE 2)				I			I			I			I

WRU92-MA071

Maintenance operations:
A=Check and adjust as necessary; I=Inspection and correct or replace as necessary; R=Replace, change or lubricate.

Service interval: [Use odometer reading or (months) whichever comes first.]	× 1000 miles	33.75	35	37.5	40	41.25	45	48.75	50	52.5	55	56.25	60
	or Months	40.5	42	45	48	49.5	54	58.5	60	63	66	67.5	72
ENGINE COMPONENTS AND EMISSION CONTROL SYSTEMS													
1. Timing belt													
2. Valve clearance*							A						A
3. Drive belts ("V" belts)													I
4. Engine oil and oil filter (see NOTE 1)		R		R		R	R	R		R		R	R
5. Engine coolant													R
6. Catalytic converter													
7. Exhaust pipes and mountings (see NOTE 1)							I						I
8. Idle speed		A											A
9. Air filter (see NOTE 2)*			I		I		I		I		I		R
10. Fuel filter													R
11. Fuel lines and connections													I
12. Fuel tank cap gasket													I
13. Spark plug wires and distributor													
14. Spark plugs*													R
15. Positive crankcase ventilation (PCV) system													I
16. EGR system													
17. Charcoal canister													
18. Oxygen sensor**		Replace at initial 80,000 miles											
CHASSIS AND BODY													
19. Clutch pedal				I			I			I			I
20. Brake linings and drums				I			I			I			I
21. Brake pads and discs				I			I			I			I
22. Brake lines and hoses							I						I
23. Steering linkage				I			I			I			I
24. Steering gear box							I						I
25. Transmission, transfer and differential oil				R			R			R			R
26. Wheel bearing							I						I
27. Wheel bearing grease													R
28. Steering knuckle & linkage chassis grease				R			R			R			R
29. Propeller shafts grease				R			R			R			R
30. Bolts and nuts on chassis and body (see NOTE 2)				I			I			I			I

Performance of the maintenance services indicated by * is a condition of the Emission control system Warranty.
See Warranty Information Book for complete warranty information.
★...Recommended in California

(NOTE)

1. Applicable when you mainly operate your vehicle on rough and/or muddy road. If not, apply the schedule for NORMAL driving.
2. Applicable when you mainly operate your vehicle on dusty roads. If not, apply the schedule for NORMAL driving.
3. After 120,000 miles, the maintenance services should be performed at the same intervals.

SEVERE CONDITION SCHEDULE (2)

Maintenance operations:
A=Check and adjust as necessary; I=Inspection and correct or replace as necessary; R=Replace, change or lubricate.

Service interval: [Use odometer reading or (months) whichever comes first.]	× 1000 miles	63.75	65	67.5	70	71.25	75	78.75	80	82.5	85	86.25	90
	or Months	76.5	78	81	84	85.5	90	94.5	96	99	102	103.5	108
ENGINE COMPONENTS AND EMISSION CONTROL SYSTEMS													
1. Timing belt													
2. Valve clearance*							A						A
3. Drive belts ("V" belts)													I
4. Engine oil and oil filter (see NOTE 1)		R		R		R	R	R		R		R	R
5. Engine coolant													R
6. Catalytic converter													
7. Exhaust pipes and mountings (see NOTE 1)							I						I
8. Idle speed		A											A
9. Air filter (see NOTE 2)*			I		I		I		I		I		R
10. Fuel filter													R
11. Fuel lines and connections													I
12. Fuel tank cap gasket													I
13. Spark plug wires and distributor													
14. Spark plugs*													R
15. Positive crankcase ventilation (PCV) system													I
16. EGR system													
17. Charcoal canister													
18. Oxygen sensor**		Replace at initial 80,000 miles											
CHASSIS AND BODY													
19. Clutch pedal				I			I			I			I
20. Brake linings and drums				I			I			I			I
21. Brake pads and discs				I			I			I			I
22. Brake lines and hoses							I						I
23. Steering linkage				I			I			I			I
24. Steering gear box							I						I
25. Transmission, transfer and differential oil				R			R			R			R
26. Wheel bearing							I						I
27. Wheel bearing grease													R
28. Steering knuckle & linkage chassis grease				R			R			R			R
29. Propeller shafts grease				R			R			R			R
30. Bolts and nuts on chassis and body (see NOTE 2)				I			I			I			I

WRU92-MA073

Maintenance operations:
A=Check and adjust as necessary; I=Inspection and correct or replace as necessary; R=Replace, change or lubricate.

Service interval: [Use odometer reading or (months) whichever comes first.]	× 1000 miles	93.75	95	97.5	100	101.25	105	108.75	110	112.5	115	116.25	120
	or Months	112.5	114	117	120	121.5	126	130.5	132	135	138	139.5	144
ENGINE COMPONENTS AND EMISSION CONTROL SYSTEMS													
1. Timing belt													
2. Valve clearance*							A						A
3. Drive belts ("V" belts)													I
4. Engine oil and oil filter (see NOTE 1)		R		R		R	R	R		R		R	R
5. Engine coolant													R
6. Catalytic converter													
7. Exhaust pipes and mountings (see NOTE 1)							I						I
8. Idle speed		A											A
9. Air filter (see NOTE 2)*			I		I		I		I		I		R
10. Fuel filter													R
11. Fuel lines and connections													I
12. Fuel tank cap gasket													I
13. Spark plug wires and distributor													
14. Spark plugs*													R
15. Positive crankcase ventilation (PCV) system													I
16. EGR system													
17. Charcoal canister													
18. Oxygen sensor**		Replace at initial 80,000 miles											
CHASSIS AND BODY													
19. Clutch pedal				I			I			I			I
20. Brake linings and drums				I			I			I			I
21. Brake pads and discs				I			I			I			I
22. Brake lines and hoses							I						I
23. Steering linkage				I			I			I			I
24. Steering gear box							I						I
25. Transmission, transfer and differential oil				R			R			R			R
26. Wheel bearing							I						I
27. Wheel bearing grease													R
28. Steering knuckle & linkage chassis grease				R			R			R			R
29. Propeller shafts grease				R			R			R			R
30. Bolts and nuts on chassis and body (see NOTE 2)				I			I			I			I

Performance of the maintenance services indicated by * is a condition of the Emission control system Warranty.
See Warranty Information Book for complete warranty information.
★...Recommended in California

(NOTE)

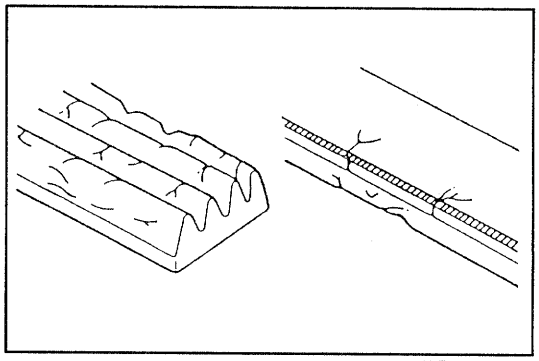
1. Applicable when you mainly operate your vehicle on rough and/or muddy road. If not, apply the schedule for NORMAL driving.
2. Applicable when you mainly operate your vehicle on dusty roads. If not, apply the schedule for NORMAL driving.
3. After 120,000 miles, the maintenance services should be performed at the same intervals.

MAINTENANCE OPERATIONS

COLD ENGINE OPERATIONS

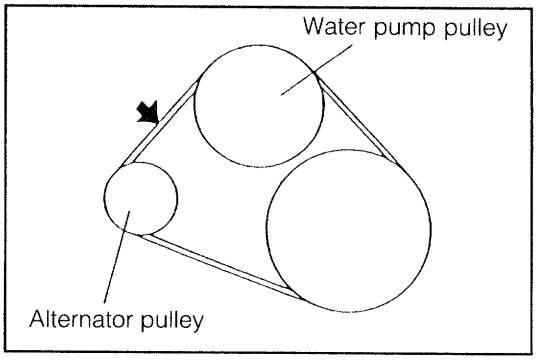
1. Replacement of timing belt
   (1) Remove the timing belt.
   (See section EM)
   (2) Install the timing belt.
   (See section EM)

WRU90-MA008



2. Inspection of drive belt (V-ribbed belt)
   (1) Visually check the belt for separation of the adhesive rubber above and below the core, core separation from the belt side, severed core, separation of the rib from the adhesive rubber, cracks or separation of the ribs, torn or worn ribs or cracks in the inner ridges of the ribs. If necessary, replace the drive belt.

WRU90-MA009

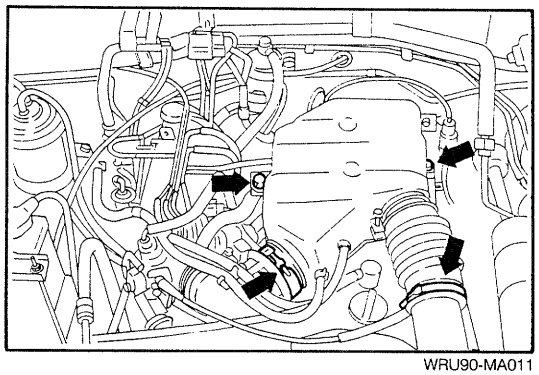


WRU90-MA010

   (2) Measure the amount of the drive belt deflection when the midpoint of the drive belt between the alternator and the water pump pulley is pushed with a force of 22 lb (10 kg).
   Specified Belt Deflection
      New belt:
         4 - 5 mm (0.16 - 0.20 inch)
         [with a force of 10 kg (22 lb) applied at the point shown in the figure.]
      Used belt:
         5 - 6 mm (0.20 - 0.24 inch)
         [with a force of 10 kg (22 lb) applied at the point shown in the figure.]

   If necessary, adjust the drive belt tension.
   NOTE:
   - "New belt" refers to a belt which has been used on a running engine for less than five minutes.
   - "Used belt" refers to a belt which has been used on a running engine for five minutes or more.
   - After replacing the drive belt, check that it fits properly in the ribbed grooves, especially in the places difficult to see.
   - After installing a new belt, run the engine for about five minutes and then recheck the tension.

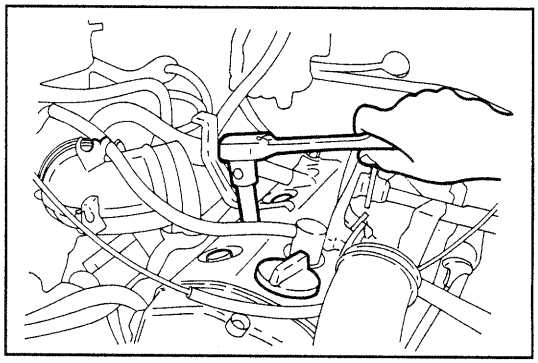
3. Replacement of spark plugs
   (1) Remove the air chamber.
   ① Unlock the clamps.
   ② Remove the bolts.



WRU90-MA011

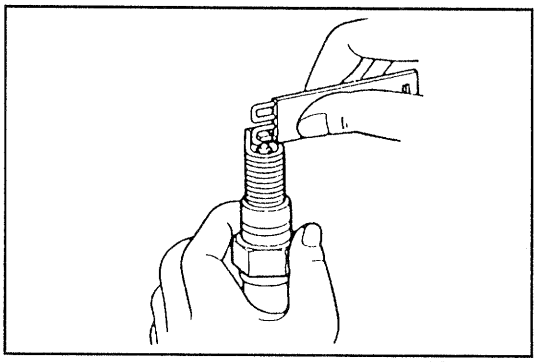
(2) Disconnect the spark plug wire at the spark plug side.
(3) Remove the spark plug, using the following SST.
SST: 09268-87703-000

WARNING:
Since the spark plugs are hot care must be exercised to avoid getting scalded.


WRU90-MA012

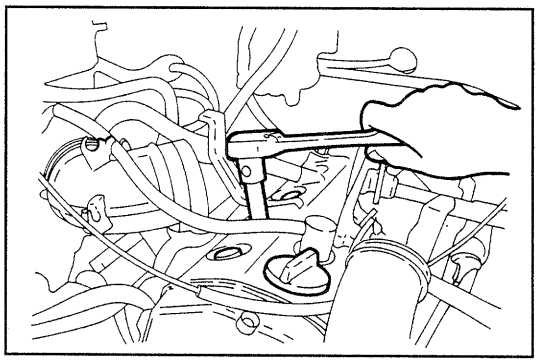
(4) Using a plug gap gauge, check the air gap on the new spark plugs.
Specified Air Gap:

CHAMPION:	RC9YC4	1.0 - 1.1 mm (0.039 - 0.043 inch)
NIPPONDENSO:	K20PR-U11	
NGK:	BKR6E-11	


WRU90-MA013

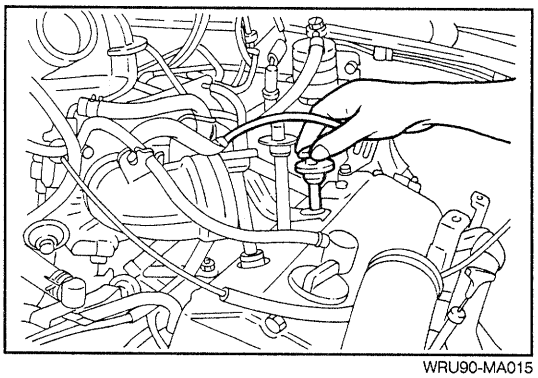
NOTE:
When adjusting the gap of a new plug, bend only the base of the ground electrode. Do not touch the tip. Never attempt to adjust the gap on a used spark plug.
Make sure that all four spark plugs are of the same manufacturer and have the same heating range.

(5) Install the spark plug, using the following SST.
SST: 09268-87703-000
Specified Tightening Torque:
1.5 - 2.2 kg-m (10.8 - 15.9 ft-lb, 14.7 - 21.6 N·m)

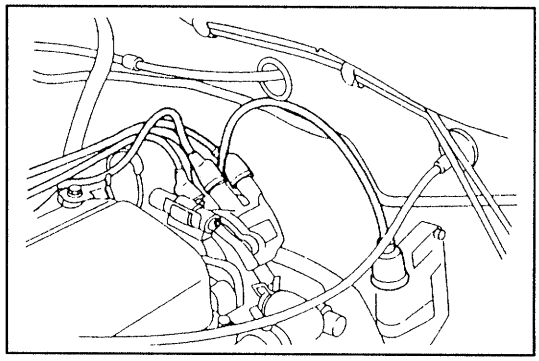

WRU90-MA014

NOTE:
Since the insulator strength of a small spark plug is comparatively smaller than that of regular spark plugs, when tightening, be sure to use the tool exclusively used for this application. Also, when tightening, never use the wrench in a crooked way.

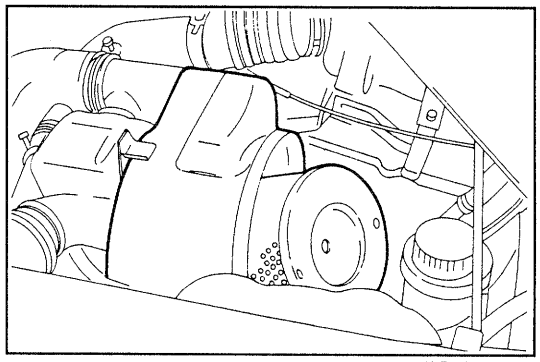
(6) Connect the spark plug wire to the spark plug.


WRU90-MA015

4. Inspection of spark plug wires and distributor
   (1) Visually inspect spark plug wires for loose connections, deterioration, cracks or other damage. Also visually inspect distributor cap for cracks. Securely connect or replace parts as necessary.
   (2) Installed the air chamber.

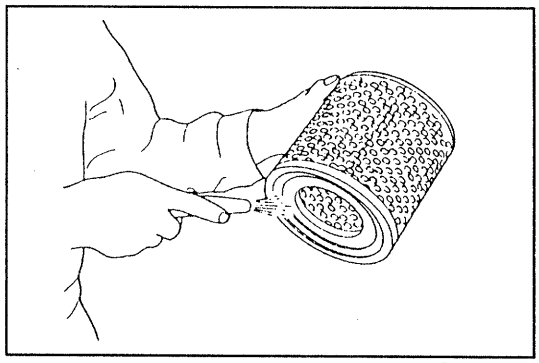

WRU90-MA016

5. Inspection of air filter
   (1) Removal of the air filter element from the air cleaner case
      1) Unlock the air cleaner cap at the three points.
      2) Remove the air filter element installing nut, then remove the air filter element.
   (2) Visually check that the air cleaner element is not excessively dirty, damaged or oil.
   Replace the air filter element, if necessary.

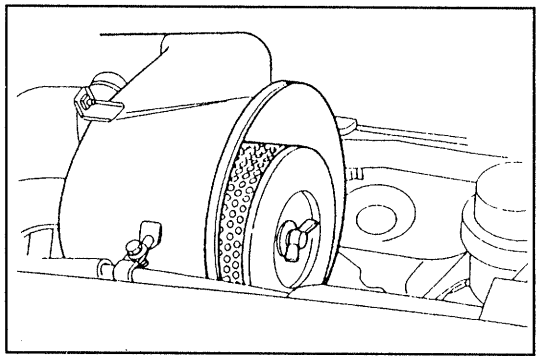

WRU90-MA017

   (3) Clean the element with compressed air.
   First blow compressed air from the inside thoroughly. Then, blow off the outside of the element.
   CAUTION:
   The air pressure to be used for this cleaning operation should not exceed 4.0 kg/cm^2 (56.9 psi).

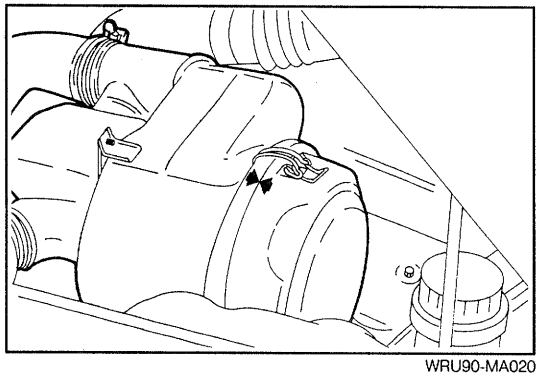
   Replace the air filter element, if necessary.


WRU90-MA018

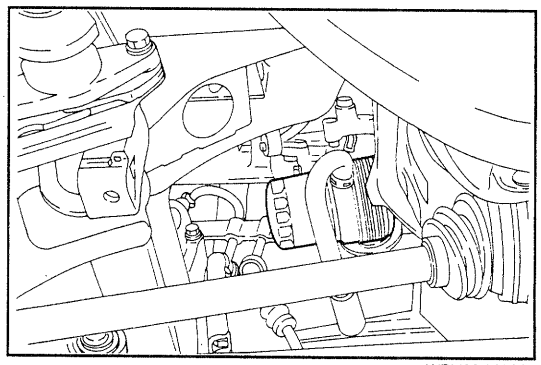
   (4) Install the air cleaner filter element in the air cleaner case using the installing nut.


WRU90-MA019

   (5) Lock the air cleaner cap at the three points.
   NOTE:
   Align the matching marks provided on the air cleaner case and cap.


WRU90-MA020

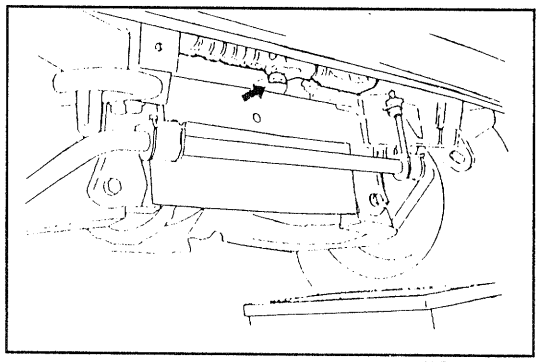
6. Engine oil change and oil filter replacement
(See section LU)
Oil grade: API grade SG or SF, multigrade viscosity and fuel-efficient oil
Engine oil capacity
Drain and refill: 3.3 liters (3.5 U.S. qts.)
Drain and refill with oil filter replacement: 3.5 liters (3.7 U.S. qts.)


WRU90-MA021

7. Engine coolant change

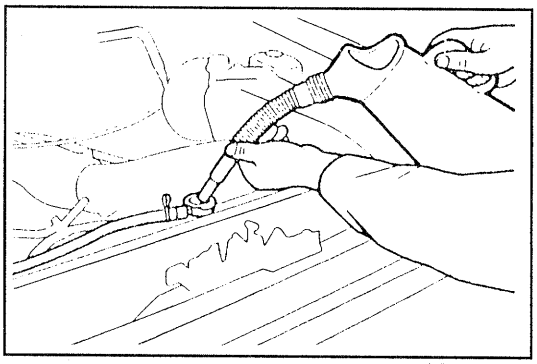
WARNING:
To avoid the risk of burn or injuries, never remove the radiator cap or the drain plug if the engine is still hot.

CAUTION
As regards water to be used as cooling water, use soft water which does not contain salt or minerals, calcium, magnesium and so forth.


WRU90-MA022

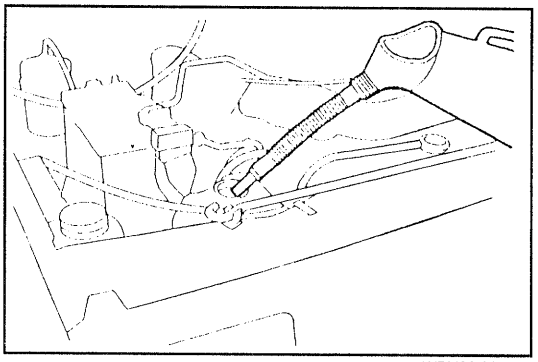
(1) Remove the radiator cap.
(2) Drain the coolant from the radiator drain plug.
(3) Close the drain plug.
(4) Fill the radiator with water.
(5) Repeat the steps (2) to (4).
(6) Drain the coolant of the reserve tank.

(7) Pour the radiator and reserve tank with ethylene-glycol base antifreeze of a good brand. The mixing ratio should be decided according to the manufacturer's instructions of manufacturer of autifreeze solution.
Reference:
Coolant Capacity
5.5 liters (5.8 U.S. qts)
[excluding 1.0 liter (1.1 U.S. qts.) for reserve tank]


WRU90-MA023

CAUTION
Use a good brand of ethylene-glycol base antifreeze solution.

(8) Fill the radiator with water.
(9) Fill the reserve tank with water up to the full level.
(10) Start the engine. Check to see if the coolant level in the radiator drops.
If the coolant level drops, replenish the water.
(11) Install the radiator cap and reserve tank cap.

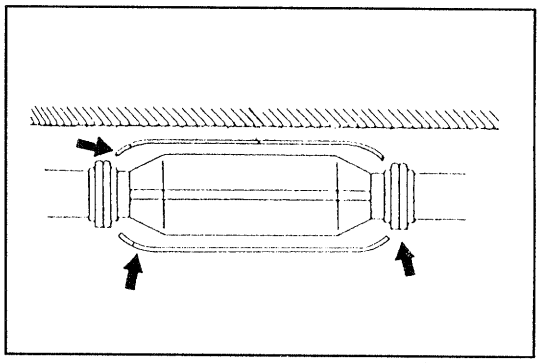

WRU90-MA024

(12) Warm up the engine thoroughly. Afterwards, allow the coolant to cool down to the atmospheric temperature.
Recheck the coolant level at the reserve tank. Add coolant to the full level, as required.
If no coolant remains at all in the reserve tank, recheck the coolant level in the radiator. Replenish the radiator with water, as required.
Replenish the reserve tank with coolant up to the full level.

NOTE:
Here, the coolant refers to the mixture of water and antifreeze that has been mixed in accordance with the instructions of the antifreeze manufacturer.

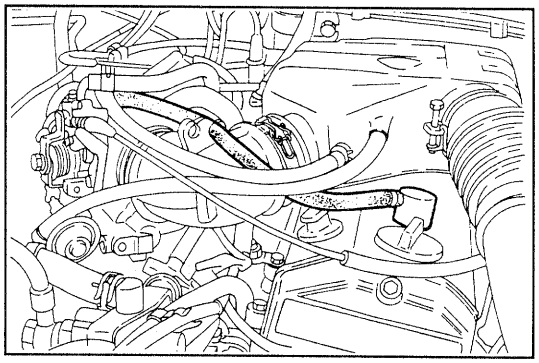
8. Catalytic converter inspection
(1) Check catalytic converter for dents or damage.
(2) Check heat insulator for damage.
(3) Check for adequate clearance between catalytic converter and heat insulator.

WRU90-MA025



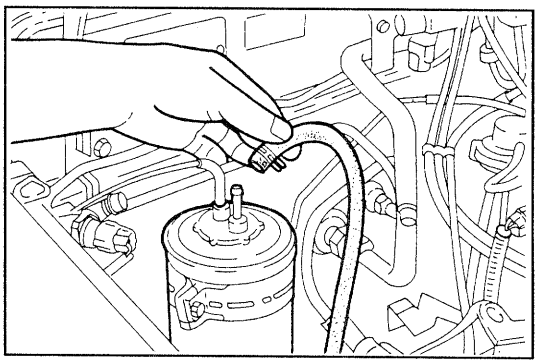
WRU90-MA026

9. Inspection of the positive crankcase ventilation (PCV) system.
Inspect the PVC hoses for collapse, cracks, damage or bulge.
Replace any faulty parts, as required.



WRU90-MA027

10. Inspection of charcoal canister
(1) Put a label on each hose connected to the charcoal canister so that each hose may be installed to the correct original position.
(2) Disconnect the hoses connected to the charcoal canister.
(3) Unlock the charcoal canister by raising it.

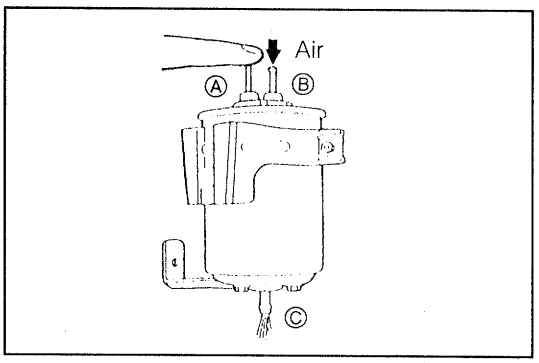


WRU90-MA028

(4) Plug the pipe Ⓐ with your finger and blow compressed air 3kg/cm^2 (43 psi) through the pipe Ⓑ (fuel tank side).
- Check that air comes out of the bottom pipe Ⓒ without resistance.
- Check that no activated charcoal comes out.

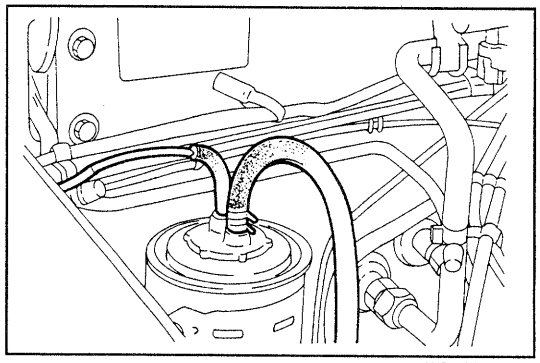
If necessary, replace the charcoal canister.

NOTE:
Do not attempt to wash the charcoal.



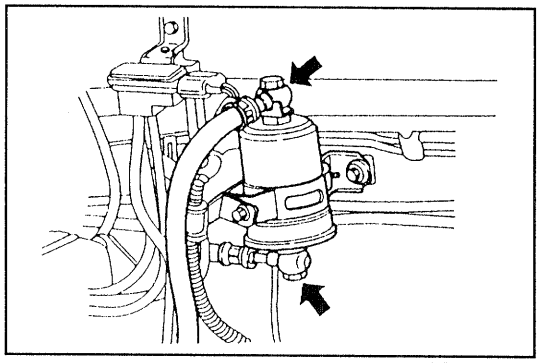
WRU90-MA029

(5) Install the charcoal canister.
(6) Install the disconnected hoses according to the respective label.
(7) Remove the labels attached to the hoses.



WRU90-MA030

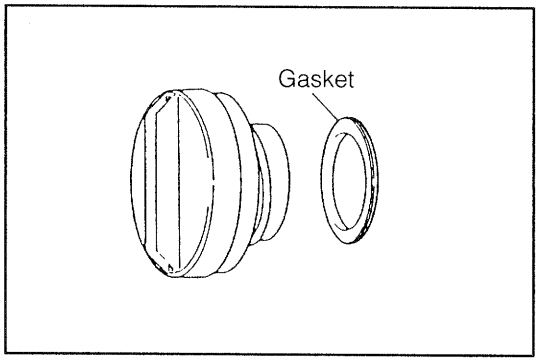
11. Fuel filter replacement
Replace the fuel filter when schedules.
(See section EF)



WRU90-MA031

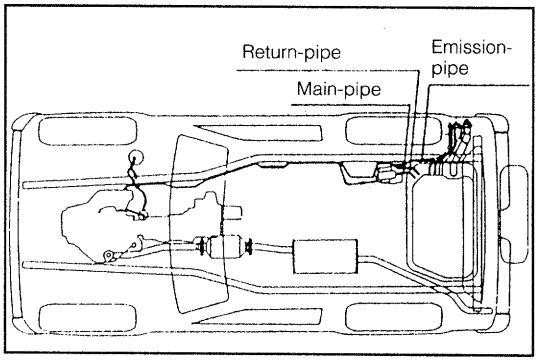
12. Replacement of gasket in fuel tank cap
(1) Remove the fuel tank cap.
(2) Remove the old gasket ("O" ring) from the fuel tank cap.
NOTE:
Do not damage the cap.

(3) Inspect the cap for damage or cracks.
If necessary, replace the cap.
(4) Install the new gasket by hand.
(5) Install the cap and check the torque limiter.
If necessary, replace the cap.



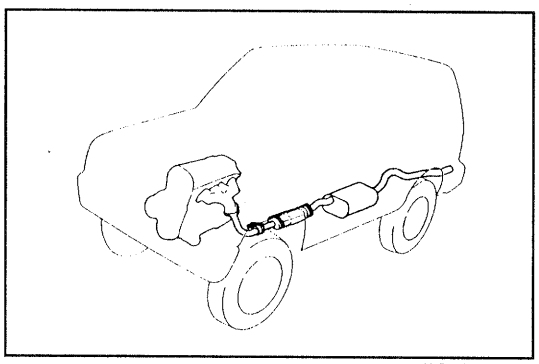
WRU90-MA032

13. Inspection of fuel lines and connections
Visually inspect the fuel lines for cracks, leakage, loose connections, or deformation.



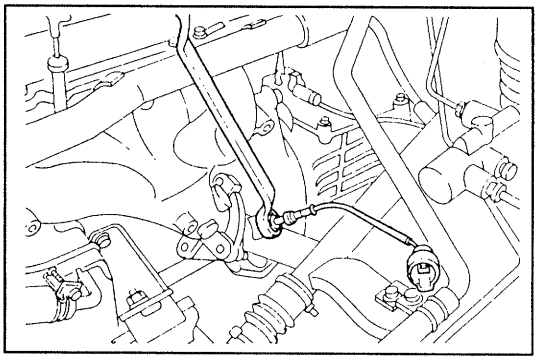
WRU90-MA033

14. Inspection of exhaust pipe and mountings
Visually inspect the pipes, hangers, and connections for severe corrosion, leaks or damage.

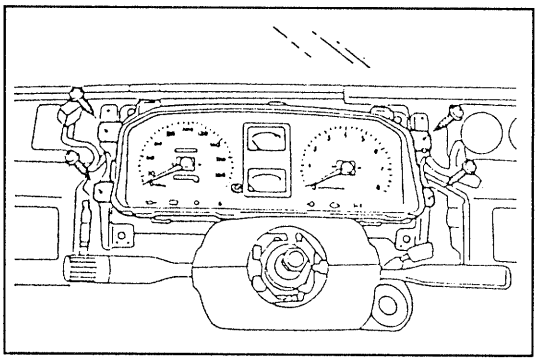


WRU90-MA034

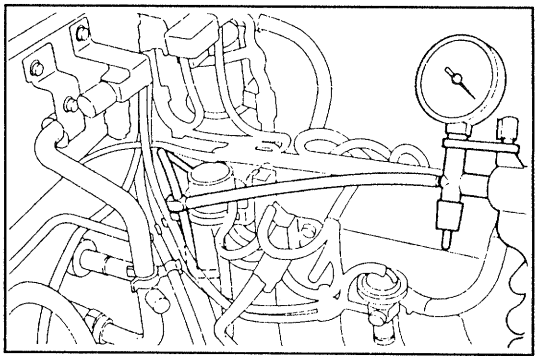
15. Oxygen sensor replacement
    (1) Replace the oxygen sensor at 128,000 km (80,000 miles)


WRU90-MA035

    (2) Remove the warning bulb for oxygen sensor indicator light.
    (See section BE)

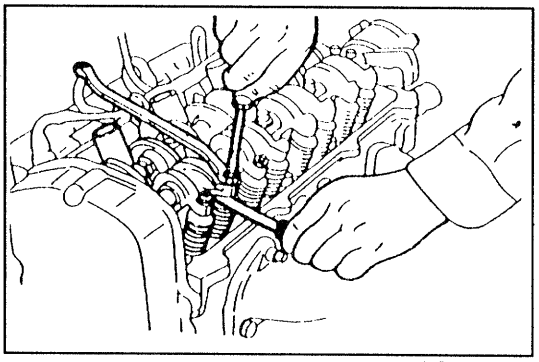

WRU90-MA036

16. Inspection of EGR system
    Check EGR system for proper operation.
    (See section EC)


WRU90-MA037

HOT ENGINE OPERATIONS

1. Valve clearance adjustment
   (See section EM)
   NOTE:
   Check and adjust the valve clearance while the engine is hot*.


WRU90-MA038

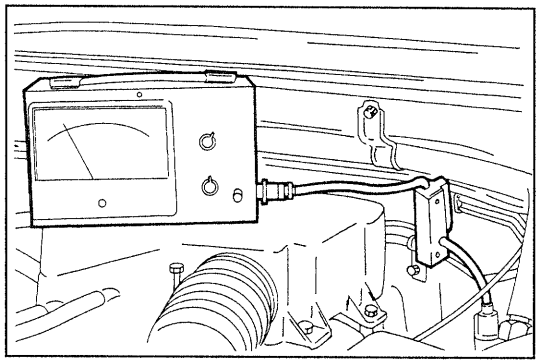
   *: Here, "hot" denotes engine conditions where the cooling water temperature is above 80°C (176°F), and the lubrication oil temperature is above 60°C (110°F).
   Valve clearance (Hot)
   Intake:0.20 - 0.30 mm (0.008 - 0.012 inch)
   Exhaust:0.28 - 0.38 mm (0.011 - 0.015 inch)
   (Referance:cold)
   Intake:0.18 mm (0.007 inch)
   Exhaust:0.25 mm (0.010 inch)

2. Idle speed adjustment
   (1) Perform the preparatory operations given below.
   - Securely apply the parking brake.
   - Ensure that no diagnosis code has been memorized in the ECU. (Except normal code.)
   - The air cleaner filter element installed.
   - All pipes and hoses of the air intake system connected.
   - All vacuum lines connected (i.e. PCV system, etc.)
   - All accessories switched OFF.
   - Ensure that the exhaust and intake systems exhibit no gas leakage.
   - The EFI system wiring connectors fully plugged.
   - The transmission in the "Neutral" position.
   - The steering wheel in the straight ahead condition. (Power steering equipped vehicle only)
   - Warm up the engine thoroughly.

   NOTE:
   If the idle speed adjustment can not be performed, check the systems described in step (1).

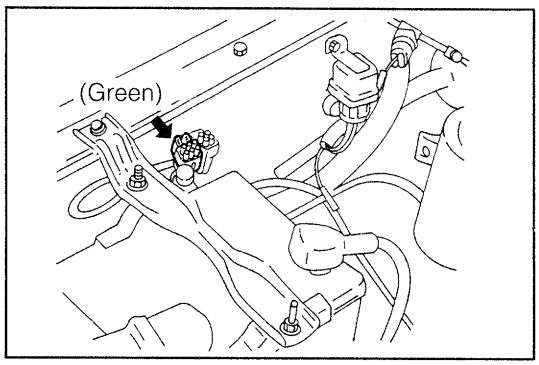
WRU90-MA039

(2) Connect the measuring terminal of a tachometer to the engine.



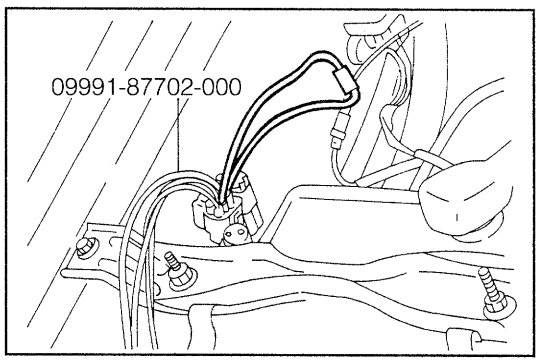
WRU90-MA040

(3) Remove the engine check terminal cap (Green).



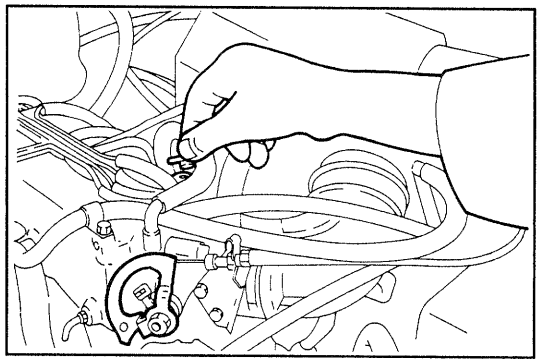
WRU90-MA041

(4) Connect the following SST to the check terminal and connect the test terminal (Brown) with Ground terminal (Black).
   SST: 09991-87702-000



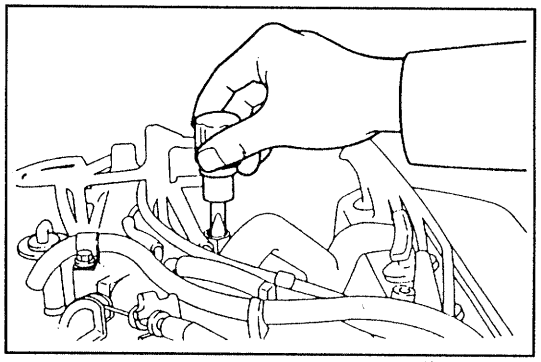
WRU90-MA042

(5) Remove the idle adjusting screw cap from the throttle body.
(6) Race the engine to 2000 rpm (do not exceed the 4000 rpm) for 2 - 3 times.

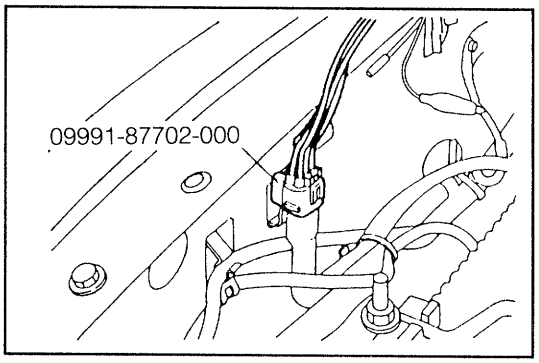

WRU90-MA043

(7) Adjust the idle speed to specified rpm by turning the idle adjusting screw.
Idle rpm (T terminal short): 800 ± 50 rpm

NOTE:
This adjustment should be encountered while the engine is warmed up thoroughly.


WRU90-MA044

(8) Remove the SST from the engine check connector.
(9) Race the engine to 2000 rpm (do not exceed the 4000 rpm) for 2 - 3 times.



WRU90-MA045

(10) Ensure that the engine idle rpm is within the specification.
Idle rpm: 850 ± 50 rpm

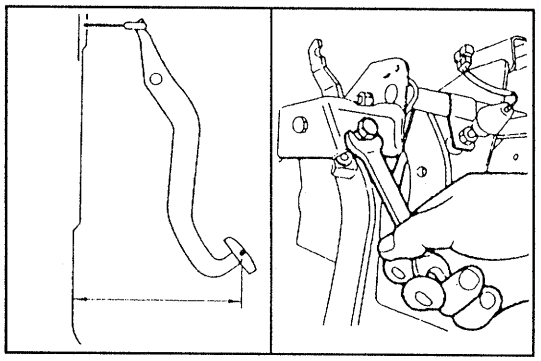
(11) Turn off the ignition switch.
(12) Install the engine check terminal cap to the engine check terminal.
(13) Install the idle adjusting screw cap to the throttle body.
(14) Remove the tachometer.
(15) Remove the SST from the distributor wire connecters.
(16) Connect the distributor wire connector.

WRU90-MA046

CLUTCH PEDAL

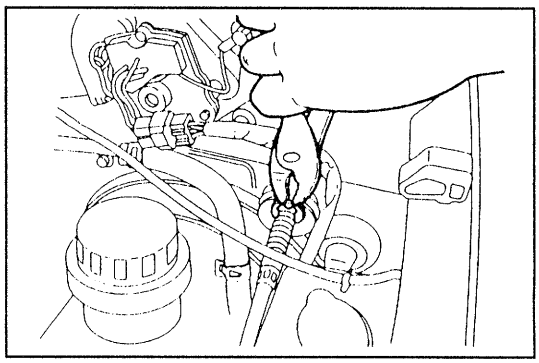
1. Check of clutch
   (1) Adjust the clutch pedal height by means of the set bolt.
   Clutch Pedal Installation Height:
   219 - 227 mm (8.62 - 8.94 inch)

NOTE:
The clutch pedal height should be measured from the body metal section by rolling up the carpet and floor mat.

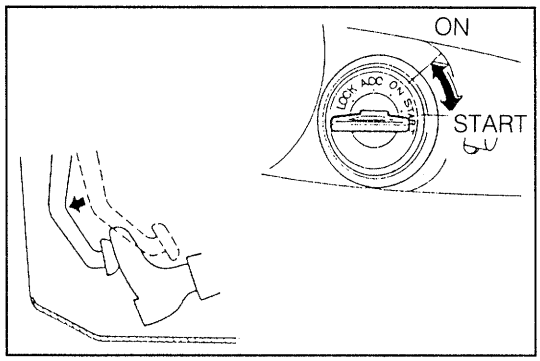

WRU90-MA047

(2) Connect the clutch cable to the clutch pedal. Adjust the clutch free travel.
Adjust the clutch pedal free travel by moving the clip of the clutch cable.
Clutch Pedal Free Travel:
18 - 27 mm (0.071 - 1.06 inch)

NOTE:
Apply grease to the clutch cable and the installation section of the pedal.


WRU90-MA048

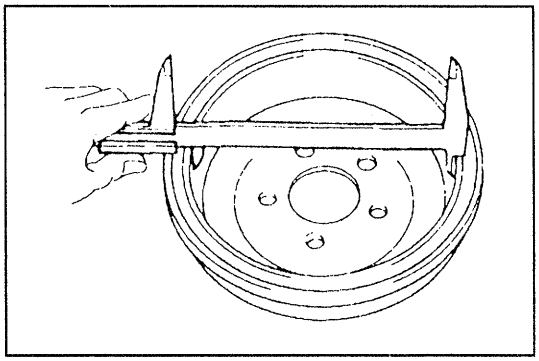
2. Check of clutch switch
(1) Ensure that the engine will not start when the clutch pedal is not fully depressed.
(2) Ensure that the engine can start when the clutch pedal is fully depressed.



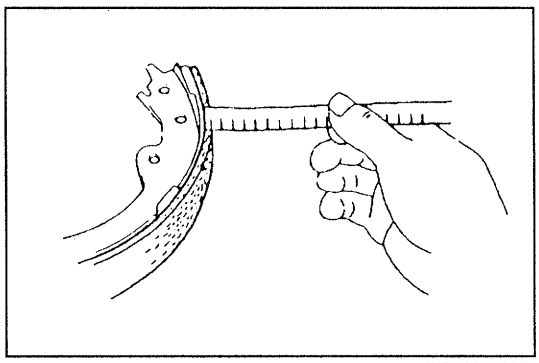
WRU90-MA049

BRAKE LININGS AND DRUMS

1. Inspect the brake drum for damage, inner surface wear, scores, or uneven wear.
Specified Diameter: 254.0 mm (10.00 inch)
Allowable Limit: 256.0 mm (10.08 inch)

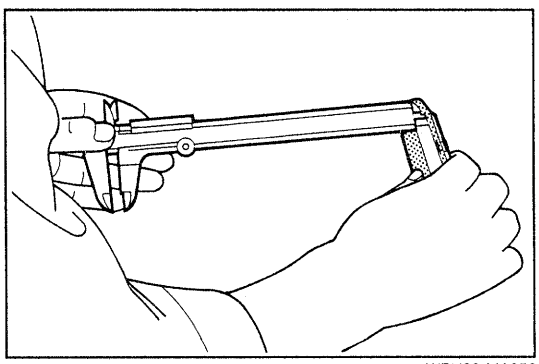

WRU90-MA050

2. Inspect the brake linings for wear.
Specified Value: 5.0 mm (0.197 inch)
Allowable Limit: 1.0 mm (0.0393 inch)


WRU90-MA051

BRAKE PADS AND DISCS

1. Check of brake disc pad for thickness, wear and damage
If the pads thickness is less than 1.0 mm (0.04 inch), replace the pad.
(1) Measure brake pad thickness.
If the pads thickness is less than 1.0 mm (0.04 inch), replace the pad.
(2) Inspect uneven wear and damage.

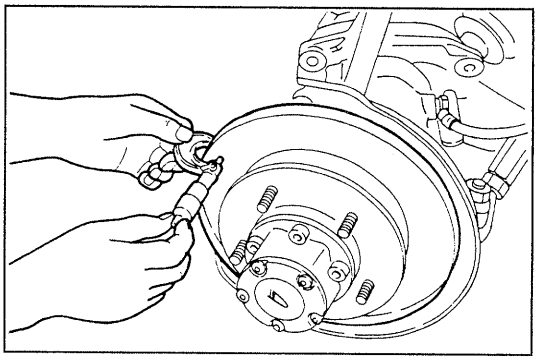

WRU90-MA052

2. Check of brake disc for wear, damage
   (1) Clean the brake disc surface and measure the disc thickness.

mm (inch)

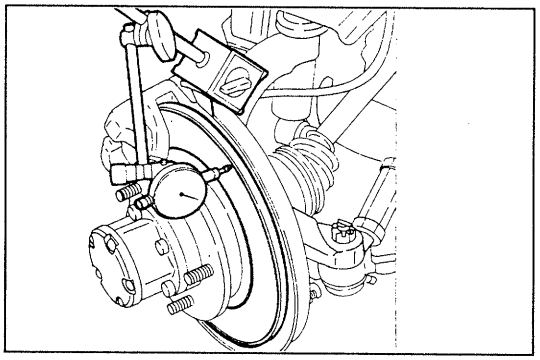
Specified thickness	12.5 (0.49)
Minimum limit	11.5 (0.45)

Difference in stock thickness of the same



WRU92-MA077

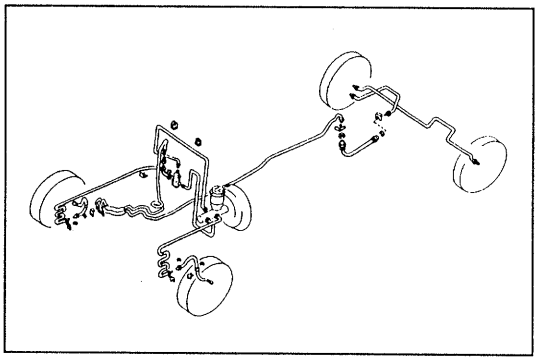
(2) Measure the disc circumference.
Specified Value:Not to exceed 0.15 mm (0.006 inch)



WRU90-MA054

BRAKE LINES AND HOSES

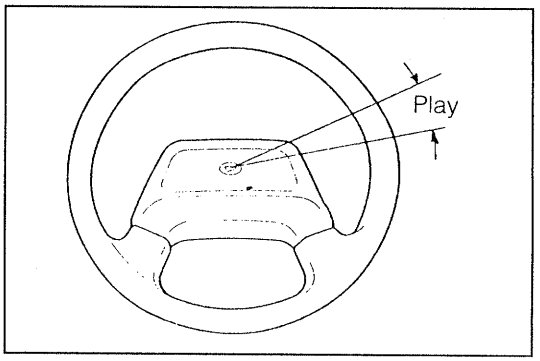
1. Checking of following parts
   (1) Hoses and tubes for damage, cracks
   (2) Hoses for deformation or swelling
   (3) Tubes for corrosion or rust
   (4) Connection of fluid leakage
   (5) Tube clamps for tightness
   (6) Hoses for extreme bending, twisting or pulling



WRU90-MA055

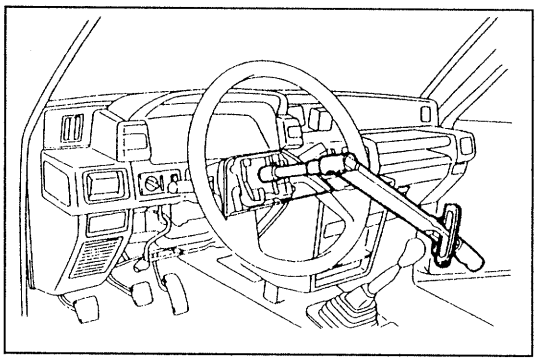
STEERING LINKAGE

1. Check of steering wheel play
   Set the vehicle in a straight-ahead condition. Check the steering wheel play by turning it lightly with your fingers.
   Specified Value: 10 - 30 mm (0.4 - 1.18 inch)



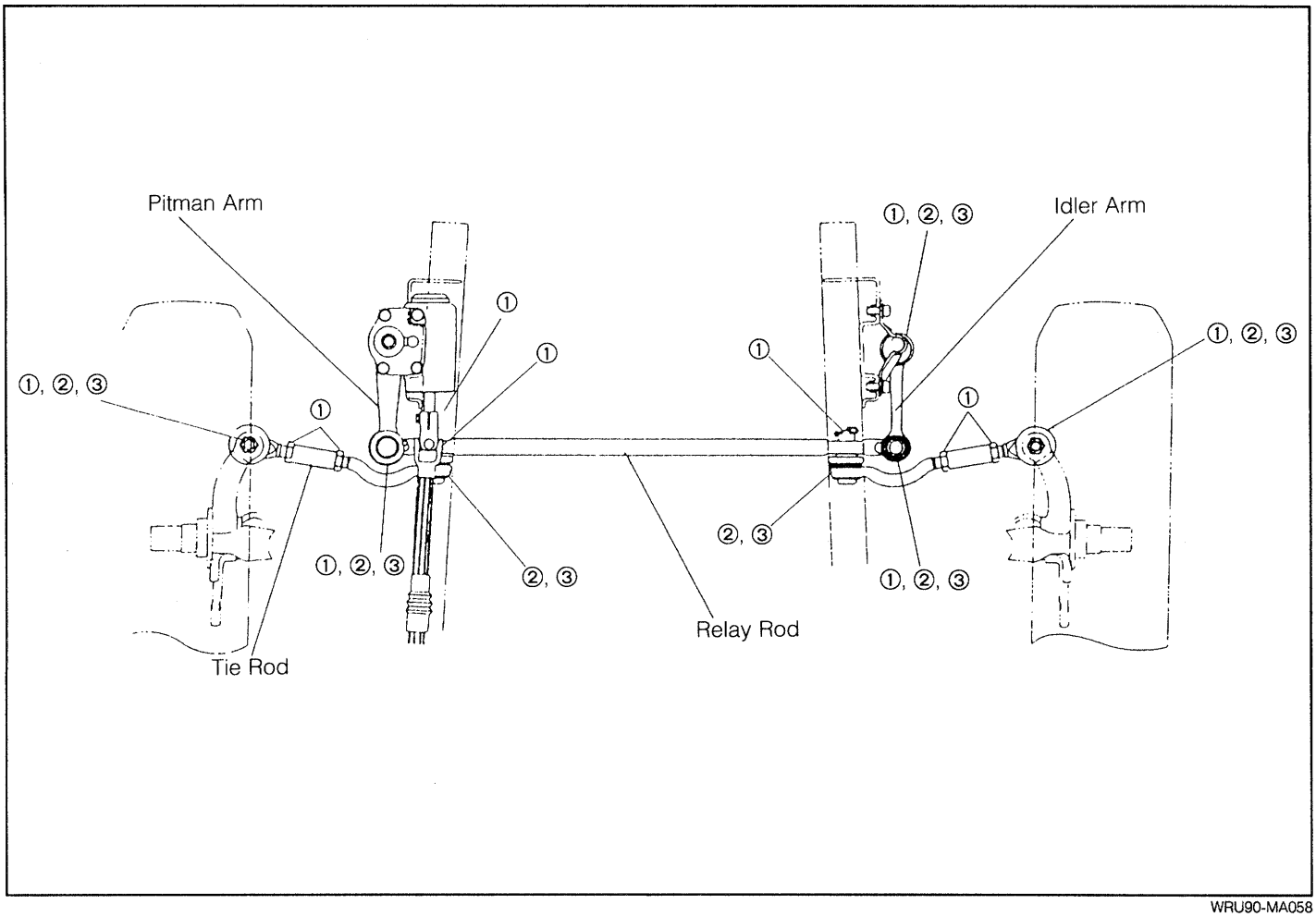
WRU90-MA056

2. Check of steering wheel tightness
   Tightening Torque:
   3.0 - 5.0 kg-m (21.7 - 36.1 ft-lb, 29.4 - 49.0 N·m)



WRU90-MA057

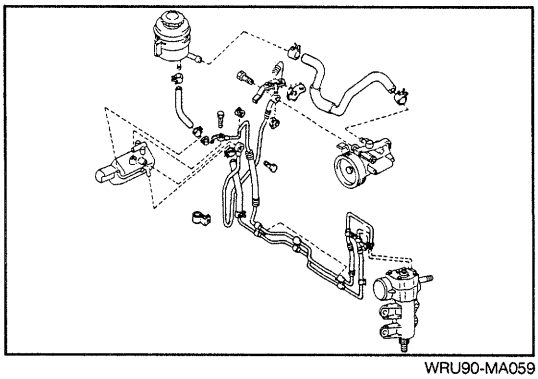
3. Check of steering linkage and dust cover.
   ① Tightness
   ② Rattle
   ③ Damage



WRU90-MA058

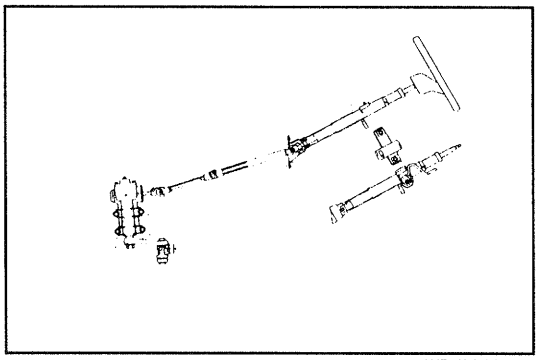
STEERING GEAR BOX

1. Check of steering gear box for oil leakage
   (1) On the power steering-equipped vehicle, check that the steering gear box, vane pump and so forth exhibit no oil leakage.



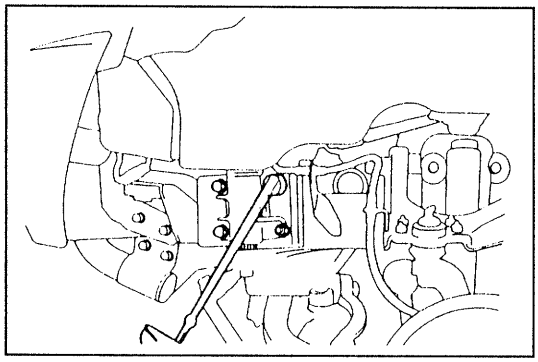
WRU90-MA059

   (2) On the vehicle equipped with no power steering, check that the steering gear box exhibits no oil leakage.



WRU90-MA060

2. Check of steering gear box tightness
   Tightening Torque:
   7.5 - 10.5 kg-m (54.2 - 75.9 ft-lb, 73.5 - 103 N·m)



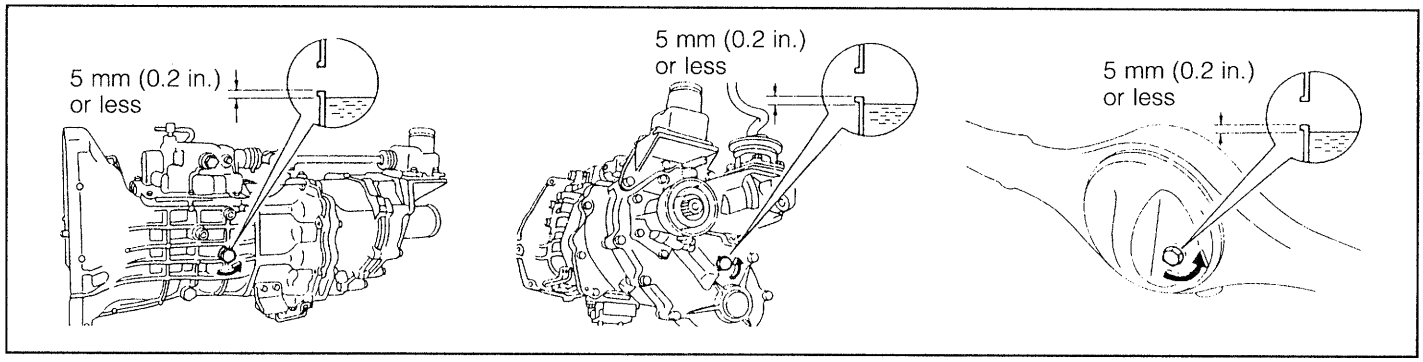
WRU90-MA061

TRANSMISSION, TRANSFER AND DIFFERENTIAL OIL

1. Check of transmission, transfer and differential
   (1) Check of oil level and leakage
   The oil should be filled up to the filler plug hole.
   Add oil if the oil level is too low. Inspect for oil leakage.
   (2) Oil change

Specified oil

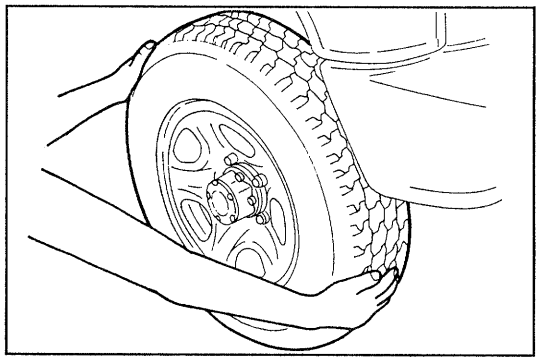
Transmission	API GL - 3 or GL - 4 Viscosity SAE 75 W - 85 or 75 W - 90
Transfer	API GL - 3 or GL - 4 Viscosity SAE 75 W - 85 or 75 W - 90
Front/Rear differential	API GL - 5 Viscosity SAE 90 or 80 W - 90
Limited slip differential	L.S.D. oil



WRU90-MA062

WHEEL BEARING

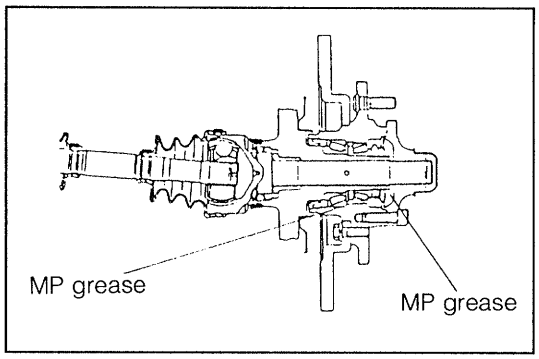
1. Check of front and rear wheel bearing rattle.



WRU90-MA063

2. Grease change of front wheel bearing
   Specified grease:
   Lithium base multipurpose grease
   25 - 30 grams (0.9 - 1.06 ounces)

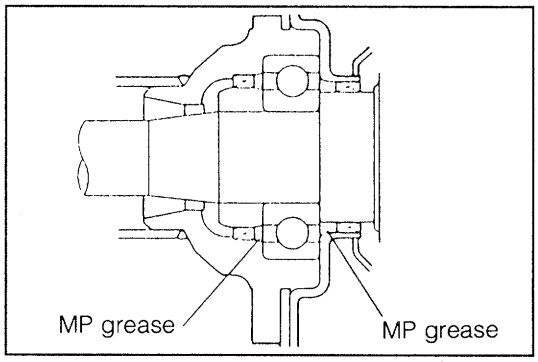
   NOTE:
   Pack the bearing with grease. Also, fill 25 to 30 grams of grease into the hub.



WRU92-MA075

3. Grease change of rear wheel bearing
   Apply 5 grams (0.18 ounces) of MP grease to both the front section and rear section of the wheel bearing.
   Specified grease: Lithium base multipurpose grease
   5 grams (0.18 ounces)

   NOTE:
   Pack the bearing with grease. Also, fill 5 grams of grease into the hub.

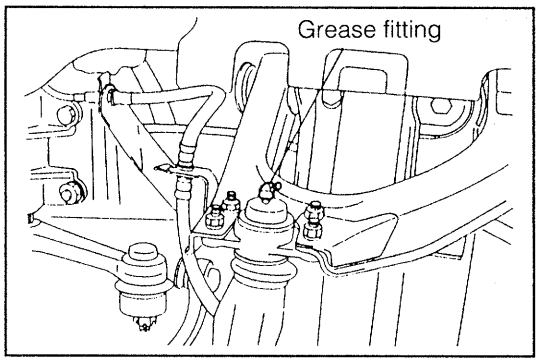


WRU90-MA065

STEERING KNUCKLE & LINKAGE CHASSIS GREASE

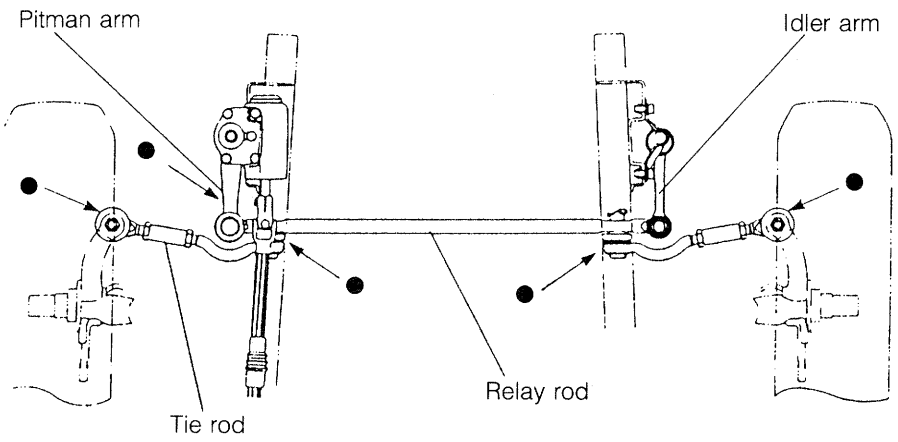
1. Grease apply of suspension ball joints.
   Apply grease to the upper arm ball joint and lower arm ball joint.
   Specified grease: Lithium base multipurpose grease

2. Grease apply of steering ball joint



WRU90-MA066

Apply chassis grease to the points bearing a "●" mark, as shown in the illustration.
Specified grease:Lithium base multipurpose grease.

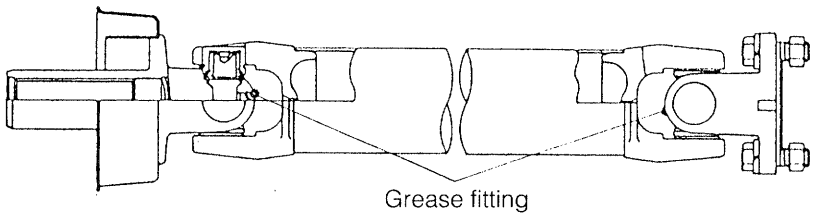


WRU92-MA076

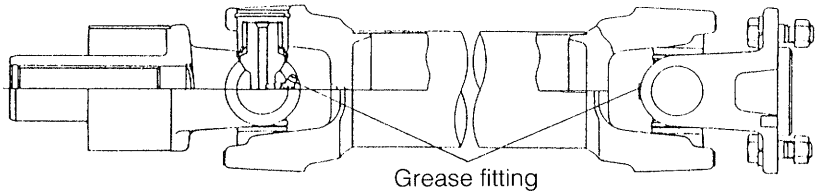
PROPELLER SHAFTS GREASE

1. Check the grease fitting of propeller shaft for grease condition.
2. Apply lithium base multipurpose grease to the fittings given below.

Front propeller shaft



Rear propeller shaft



WRU90-MA068

BOLTS AND NUTS ON CHASSIS AND BODY

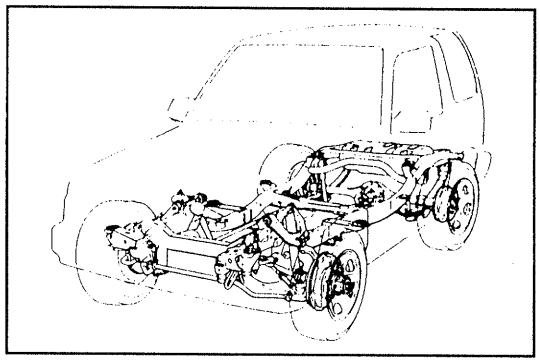
Retightening of bolts and nuts on chassis and body

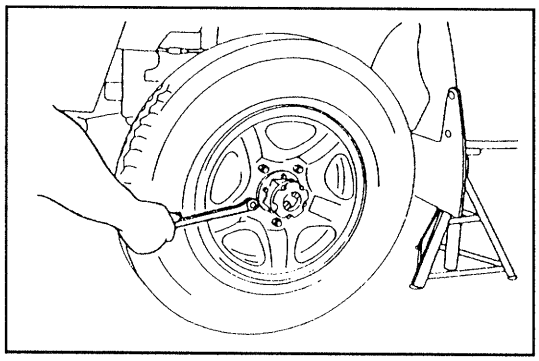
(1) Front suspension parts
(2) Power train parts
(3) Rear suspension parts
(4) Steering system parts

Check of wheel hub nuts.

(1) Retighten the hub nuts.

Tightening torque:
9.0 - 12.0 kg-m (65.1 - 86.7 ft-lb, 88.3 - 118 N·m)





WRU90-MA069