

DAIHATSU

F300

MAINTENANCE

MAINTENANCE SCHEDULE	MA-2
MAINTENANCE OPERATIONS	MA-7

WF300-MA001

MAINTENANCE

○....Check or inspect ●....Change or replace

Section	Items	What to check	× 1,000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	Refer to see page	
			× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60		
			(month) year	—	(3)	(6)	(9)	1	(3)	(6)	(9)	2	(3)	(6)	(9)	3	(3)	(6)	(9)	4	(3)	(6)	(9)	5		
Engine	• Fuel lines & connections	• Fuel hose replacement	Every 4 years																							EM Section
	• Carburetor (HD-C engine)	• Idle speed • Acceleration						○				○				○				○				○	MA-13	
	• Coolant (LLC)	• Quantity • Leakage • Change	○		○			○		○	●		○		○		○		○	●		○		○	MA-10	
	• V-belt	• Tension • Crack • Damage	○		○			○		○		○		○		○		○		○		○		○	MA-10	
	• Timing belt	• Replacement	Every 100,000 km (60,000 miles)																							EM Section
	• Distributor cap, rotor* ¹	• Damage						○				○				○				○				○	MA-7	
	• Spark plug* ¹	• Cleaning						○				○				○				○				○	MA-7	
	• Ignition timing* ¹	• Timing						○				○				○				○				○	MA-12	
Exhaust emission control system	• Blow-by gas ventilation hose	• Connection • Damage										○								○					MA-11	
	• Dash pot	• Operation						○				○				○				○				○	MA-14	
	• Spark control system	• Operation						○				○				○				○				○	MA-14	
	• Charcoal canister	• Operation						○				○				○				○				○	MA-11	
	• EGR system* ²	• Operation																						○	MA-15	
Power transmitting system	• Clutch	• Free play • Reserved working travel			○			○			○		○		○		○		○		○		○		○	MA-16
	• Transmission & differential	• Oil level • Oil leakage • Oil change	○		○			○		●		○		○		●		○		○		●		○	MA-16	
	• Propeller shaft	• Tightness • Rattle • Damage						○				○				○				○				○	MA-17	

*1: In case of US'83 engine, check every 30,000 km (18,000 miles).

*2: mark shows only for US'83 engine.

MAINTENANCE

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			× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	
			(month) year	—	(3)	(6)	(9)	1	(3)	(6)	(9)	2	(3)	(6)	(9)	3	(3)	(6)	(9)	4	(3)	(6)	(9)	5	
Suspension system	• Suspension arm, control arm, dust cover	• Tightness • Damage						○				○				○				○				○	MA-17
	• Shock absorber	• Function • Oil leakage • Damage						○				○				○				○				○	MA-17
	• Suspension ball joint	• Grease apply						○				○				○				○				○	MA-17
Running system	• Steering ball joint	• Grease apply						○				○				○				○				○	MA-19
	• Tire	• Pressure • Damage • Wear	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	MA-18
	• Front wheel bearing	• Rattle						○				○				○				○				○	MA-19
		• Grease change										●								●					FS section
	• Rear wheel bearing	• Rattle						○				○				○				○				○	MA-19
Steering system	• Steering wheel	• Tightness • Free play						○				○				○				○				○	MA-20
	• Linkage, dust cover	• Tightness • Rattle						○				○				○				○				○	MA-20
	• Wheel alignment	• Side slip test						○				○				○				○				○	MA-20
	• Knuckles	• Rattle						○				○				○				○				○	MA-21
	• Ball joint dust seal	• Damage			○		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	MA-20
	• Steering knuckles	• Grease apply						○				○				○				○				○	MA-19
	• Gear box	• Oil check	○					○				○				○				○				○	MA-21

MAINTENANCE

○....Check or inspect ●....Change or replace

Section	Items	What to check	× 1,000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	Refer to see page	
			× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60		
			(month) year	—	(3)	(6)	(9)	1	(3)	(6)	(9)	2	(3)	(6)	(9)	3	(3)	(6)	(9)	4	(3)	(6)	(9)	5		
Steering system	• Gear box	• Tightness						○				○				○				○				○	MA-21	
	• Power steering belt	• Tightness • Damage			○		○		○			○			○				○		○			○	MA-22	
	• Power steering fluid	• Fluid check	○		○		○		○			○			○				○		○			○	MA-22	
		• Fluid hose change	Every 4 years																					SR section		
Brake system	• Brake pedal & parking brake	• Free play • Reserved working travel	○		○		○		○			○		○		○		○		○		○		○	MA-22	
	• Disc pad	• Clearance • Wear • Damage						○				○				○				○				○	MA-23	
	• Brake hose, tube	• Leakage • Damage • Loose clamps	○		○		○		○			○			○		○		○		○		○		○	MA-23
		• Hose, caliper piston seal and boot change	Every 4 years																					BR section		
	• Brake fluid	• Level	○		○		○		○			○		○		○		○		○		○		○	MA-23	
		• Fluid change (Disc brake)	Every 1 year																					BR section		
	• Brake drum, lining	• Wear • Damage						○					○				○				○				○	MA-24
	• Brake booster	• Function					○						○				○				○				○	MA-24
		• Vacuum hose replacement	Every 4 years																					BR section		
	• Master & wheel cylinder	• Cup and dust seal replacement	Every 2 years																					BR section		
• Proportioning valve	• Replacement	Every 4 years																					BR section			
Chassis & body	• Exhaust pipe and muffler, mountings	• Tightness • Damage						○					○				○				○				○	MA-24

MAINTENANCE

○...Check or inspect ●...Change or replace

Section	Items	What to check	× 1,000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	Refer to see page
			× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	
			(month) year	—	(3)	(6)	(9)	1	(3)	(6)	(9)	2	(3)	(6)	(9)	3	(3)	(6)	(9)	4	(3)	(6)	(9)	5	
Chassis & body	• All doors, hood	• Lock operation • Tightness						○				○				○			○					○	MA-24
	• Seat belt	• Operation • Tightness						○				○				○			○					○	MA-24
	• Chassis grease	• Condition • Grease apply	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	MA-25
	• Wheel hub nuts, other bolts and nuts	• Tightness	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	MA-25
Electrical system	• Battery	• Electrolyte level		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	MA-25
	• Wire harness	• Tightness clamps • Damage	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	MA-26
	• Lighting system, meter & gauge	• Function	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	MA-26
	• Heater	• Heater hose replacement	Every 4 years																						BR section

WFE90-MA003

Schedule for SEVERE driving

Maintenance item	Interval
Engine oil (API SG, SF or SE)	Change every 5,000 km (3,000 miles)
Engine oil filter	Change every 5,000 km (3,000 miles)
Air cleaner element	Clean: every 2,500 km (1,500 miles) Replace: every 20,000 km (12,000 miles)
Exhaust pipe mountings	Inspect every 5,000 km (3,000 miles)

The SEVERE driving vehicles should be performed the above maintenance items in addition to the NORMAL driving maintenance items.

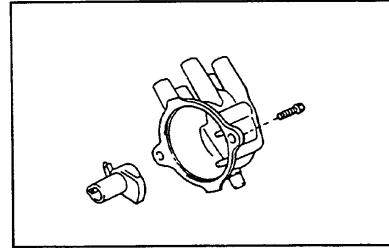
WFE90-MA004

MAINTENANCE OPERATIONS ENGINE

[COLD ENGINE OPERATIONS]

DISTRIBUTOR CAP

Inspection of distributor cap and rotor.
Visually inspect the distributor for cracks, wear or damage.

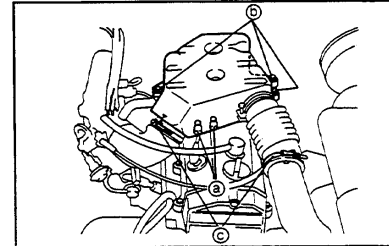


WFE90-MA005

SPARK PLUG

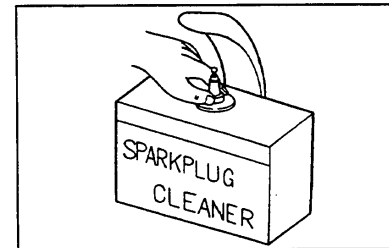
Inspection and cleaning of spark plug

- (1) Remove the air chamber (HD-E engine)
 - ① Disconnect the air conditioner and/or power steering idle-up vacuum hoses from the air chamber ㉓ (if equipped).
 - ② Remove the 3 attaching bolts ㉔.
 - ③ Disconnect the air chamber hose at the 2 clamping positions illustrated above ㉕.



WFE90-MA006

- (2) If there are traces of oil, remove it with gasoline before the spark plug is cleaned by the spark plug cleaner.

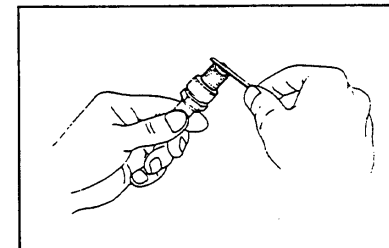


WFE90-MA007

- (3) Measure the electrode gap, using a plug gap gauge.

Recommended a plug gap

Spark plug	Air gap mm (inch)
Champion: RC9YC4	1.0 - 1.1 (0.039 - 0.043)
NIPPONDENSO: K20PR-U11	
NGK: BKR 6E-11	



WFE90-MA100

Tightening Torque of Spark Plug:

14.7 - 21.6 N·m (1.5 - 2.2 kgf·m)

- (4) When install the air chamber, make sure to align the marks provided on the air chamber and hose.

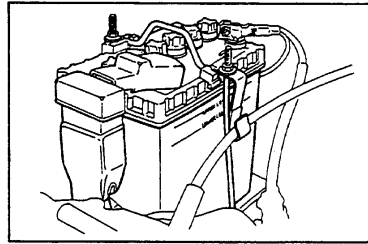
WFE90-MA101

MAINTENANCE

BATTERY

Check of battery electrolyte level

- (1) Visually check the electrolyte level between the upper line and the lower line.
- (2) If the electrolyte level is below the lower level, replenish distilled water up to the upper level.



WFE90-MA008

Check of wiring harness clamp

Visually check that the wiring harness is suitable clamp, damaged.

WFE90-MA009

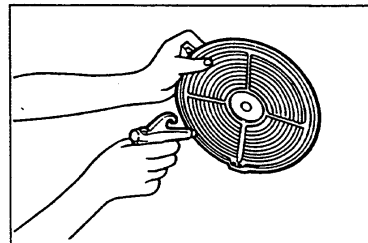
AIR CLEANER ELEMENT

Cleaning of air cleaner filter element

- (1) Remove the air cleaner filter element from the air cleaner case.
- (2) Clean the element with compressed air. First blow from the back side thoroughly. Then, blow off the front side of the element.

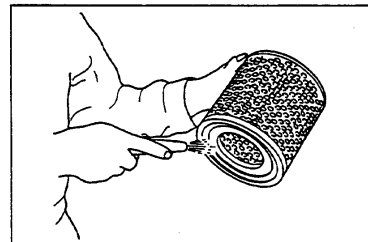
CAUTION:

The air pressure to be used for this cleaning operation should not exceed 4.0 kg/cm² (56.9 psi)



WFE90-MA010

- (3) Install the air cleaner filter element in the air cleaner.



WFE90-MA011

ENGINE OIL AND FILTER

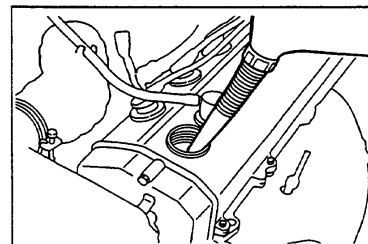
Engine oil change

Recommended oil grade: API grade SE, SF or SG

Oil capacity

When only engine oil is changed: 3.3 liter

When engine oil is changed and oil filter is replaced:
3.5 liter



WFE90-MA012

Engine oil filter replacement

- (1) Remove the oil filter, using the following SST.

SST: 09228-87201-000

NOTE:

Since the oil flows out during the replacement, receive the oil with an adequate container.

- (2) Inspect and clean the oil filter installation surface.

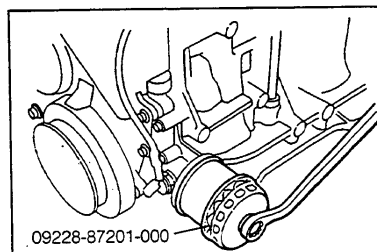
- (3) Apply clean engine oil to the gasket of a new oil filter.

- (4) Installation of oil filter

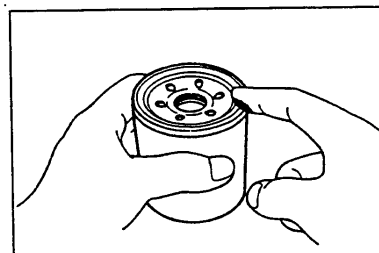
Screw in the oil filter lightly by hand until the oil seal surface contacts the oil cooler.

Then, tighten the oil filter one more turn, using the SST.

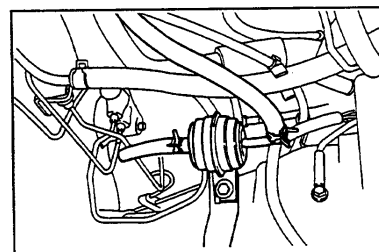
SST: 09228-87201-000



WF890-MA013



WF890-MA014



WF890-MA015

FUEL FILTER

Fuel filter replacement

- **Carburetor installed engine:**

Disconnect the hose clamp. Then, replace the fuel filter.

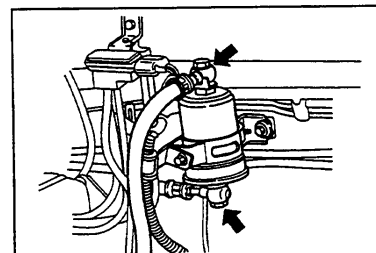
- **EFI installed engine:**

Loosen the union bolt slowly and pull it out.

WARNING:

The fuel in the fuel pipe is pressurized to a pressure of 2.55 kg/cm² (36.27 psi).

Therefore, the union bolt should be removed slowly. Otherwise, the fuel may be splashed.

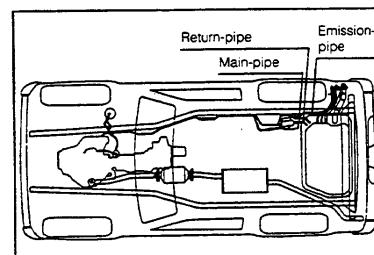


WF890-MA011

FUEL LINES & CONNECTION

Inspection of fuel lines and connections

Visually inspect the fuel lines for cracks, leakage, loose connections, or deformation.

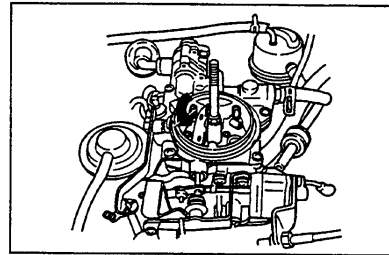


WF890-MA01

MAINTENANCE

Inspection of auto choke system (Only for HD-C)

Check that choke valve is completely closed when cold engine. Then, start the engine, check that choke valve is gradually opened in accordance with the warming-up condition of the engine.



WFE90-MA018

ENGINE COOLANT

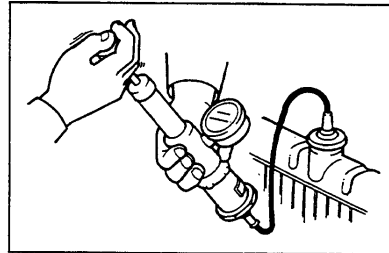
Check of engine coolant

- (1) Check of cooling system for leakage

Apply a pressure of 1.2 kg/cm² (17 psi) to the cooling system by means of a radiator tester. Ensure that the pressure does not drop.

WARNING:

Never remove the radiator tester when the coolant temperature is still high.

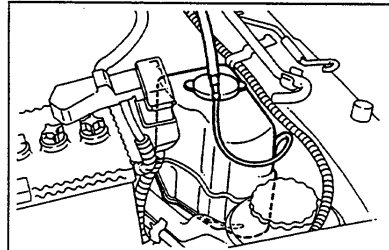


WFE90-MA019

- (2) Check of coolant level

Check to see if the coolant level is between the LOW and FULL lines of the reserve tank.

If the coolant level is near the low level or below the low level, add the coolant up to the full level.

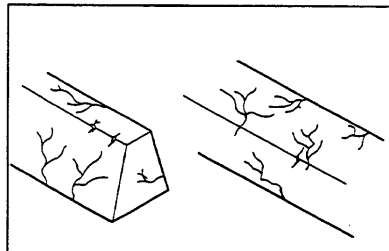


WFE90-MA020

DRIVE BELT

Inspection of drive belt

- (1) Visually check the V 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.



WFE90-MA021

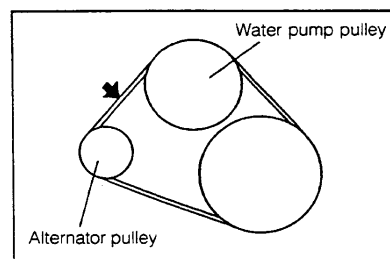
- (2) Measure the amount of the drive belt deflection when the midpoint of the drive belt between the alternator and the water pump pulley is pushed with a force of 98 N (10 kgf).

Specified Belt Deflection

- V belt: 6.0 - 8.0 mm (0.24 - 0.31 inch)
V-ribbed belt: 5.0 - 6.0 mm (0.20 - 0.24 inch)

NOTE:

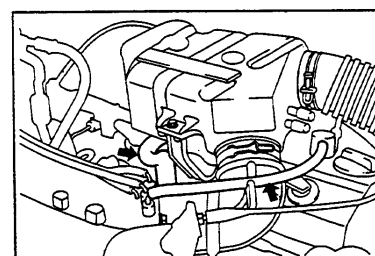
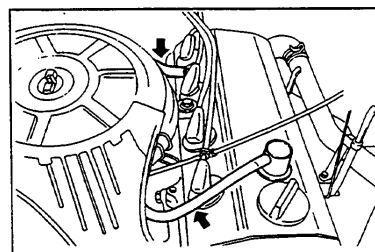
- "New belt" refers to a belt which has been used on a running engine for less than five minutes.
- After installing a new belt, run the engine for about five minutes and then recheck the tension.



WFES90-MA2

BLOW-BY GAS SYSTEM

Inspection of blow-by gas recirculating system
Check the hose, connections for cracks, leak or damage.



WFES90-MA2

CHARCOAL CANISTER

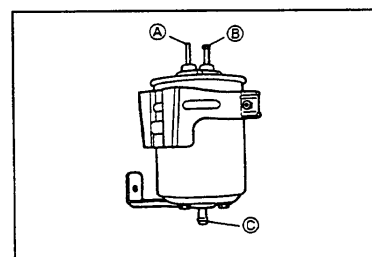
Inspection of charcoal canister

- (1) Disconnect the rubber hoses and remove the charcoal canister.

HD-E:

- (2) Blow air of 294 kPa (3 kgf/cm²) into the pipe ⑥ while holding the pipe ① closed.

Ensure that air flows smooth from the pipe ③.



WFES90-MA2

MAINTENANCE

HD-C (Only for GCC Specifications)

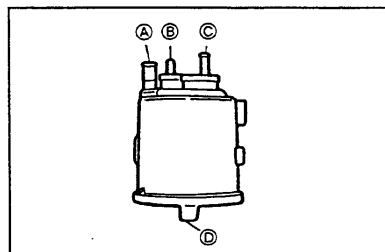
Plug the pipe ㉠ and ㉡ with your fingers and blow compressed air of 294 kPa (3 kgf/cm²) through the pipe ㉢ (fuel tank side).

- Check that the air comes out of the bottom pipe ㉣.
- Check that no activated charcoal comes out.

NOTE:

Do not attempt to wash the charcoal canister.

- (3) Install the charcoal canister and reconnect the rubber hose.



WFE90-MA025

[HOT ENGINE OPERATIONS]

IGNITION TIMING

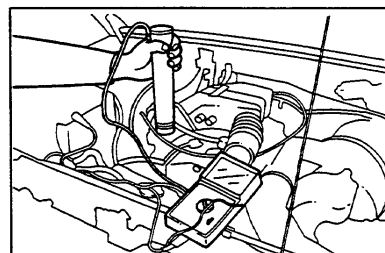
Adjustment of ignition timing

- (1) Connect the tachometer to the ignition coil.
- (2) With the engine idling as specified, use a timing light to check the timing.
Ignition timing: $3^{\circ} \pm 2^{\circ}$ BTDC/850 rpm

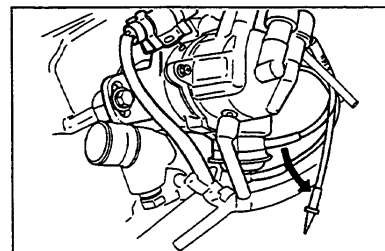
- (3) If necessary, loosen the distributor bolts and turn the distributor to align the marks. Re-check the timing after tightening the distributor.

NOTE:

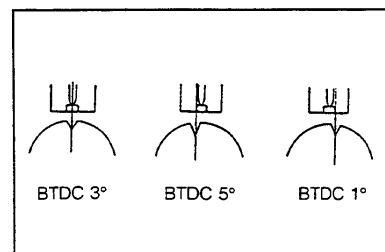
- Disconnect the vacuum hose of sub-diagram from the vacuum advancer of distributor and close the vacuum hose during test.



WFE90-MA026



WFE90-MA027



WFE90-MA028

VALVE CLEARANCE

Adjustment of valve clearances

NOTE:

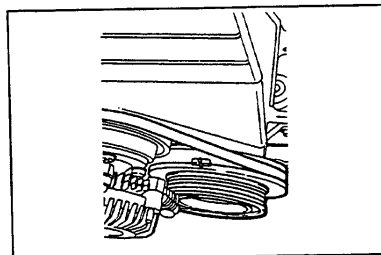
The valve clearance adjustment is performed normally when the engine is in a hot condition.

"Hot engine condition" denotes a condition in which the cooling water temperature is 75 - 85 °C (167 - 185°F) and the engine oil temperature is above 65°C (149°F).

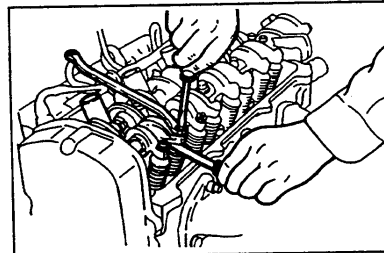
Valve clearances (Hot condition)

Intake: 0.25 ± 0.07 mm (0.0100 ± 0.0028 inch)

Exhaust: 0.33 ± 0.07 mm (0.0130 ± 0.0028 inch)



WFE90-MA029

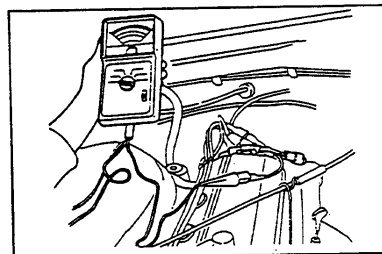


WFE90-MA030

IDLE SPEED

(1) Preparation to be made prior to idle check

- Warm up the engine thoroughly.
- All accessory switches are turned OFF.
On those vehicle equipped with a day-light system, set the light control switch to the OFF position with head light turned ON.
- Connect the tachometer with STT.
(SST: 09991-87703-000)



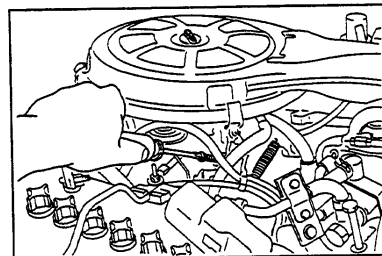
WFE90-MA031

(2) Adjustment

• Carburetor installed vehicle

Adjust the throttle adjusting screw so that the engine idle speed may become the specified.

Engine Idle Speed: 850 ± 50 rpm

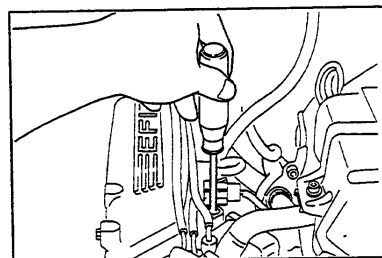


WFE90-MA032

• EFI installed vehicle

Remove the idle adjusting screw cap from the throttle body. Then, set the idle speed by turning the idle speed adjusting screw.

Engine Idle Speed: 850 ± 50 rpm

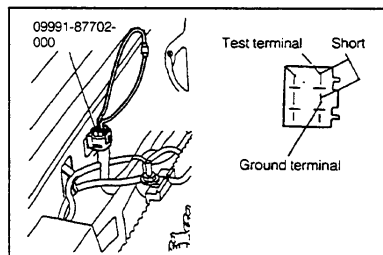


WFE90-MA033

MAINTENANCE

- NOTE: For US '83 Spec
Connect the following SST to the check terminal and connect the test terminal (Brown) with Ground (Black).
(SST: 09991-87702-000)
Engine Idle Speed: 800 ± 50 rpm

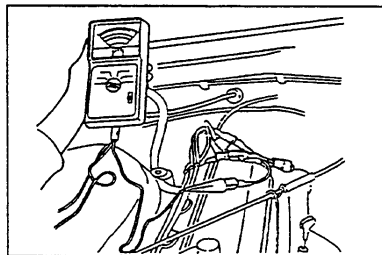
Afterward, disconnect the SST. Ensure that the engine idle speed becomes 850 ± 50 rpm.



THROTTLE POSITIONER

Inspection of throttle positioner system

- **Carburetor installed vehicle**
 - (1) Warm up the engine.
 - (2) Raise the engine speed to approximately 2500 rpm and hold the engine speed at 2500 rpm for five seconds. Ensure that the dashpot shaft is fully extended.
 - (3) Close the throttle valve quickly.
 - (4) Make sure the time required for the engine speed to drop from 1500 rpm to 1200 rpm is the specified time.
Specified Time: 1.0 - 5.0 second



NOTE:

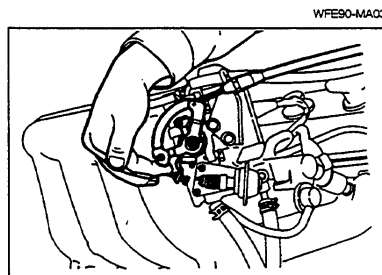
Dashpot touch engine speed: 1500 ± 50 rpm

- **EFI installed vehicle**
 - (1) Warm up the engine.
 - (2) Raise the engine speed to approximately 3500 rpm and hold the engine speed at 3500 rpm for five seconds. Ensure that the dashpot lever should be fully extended.
 - (3) Close the throttle valve quickly.
 - (4) Measure the time required for the engine speed to drop from 1800 rpm to idle speed (850 ± 50 rpm).
Specified Time: 0.5 - 5.0 seconds

NOTE:

Dashpot touch engine speed: 1800 ± 100 rpm

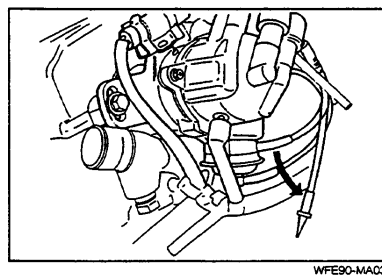
For US'83 Spec: 1600 ± 100 rpm



SPARK CONTROL SYSTEM

Inspection of spark control system

- (1) Disconnect the vacuum hose of main and sub diagram from the vacuum advancer of distributor, and close the vacuum hose. Using a timing light, check the ignition advance timing, while engine speed is being raised.

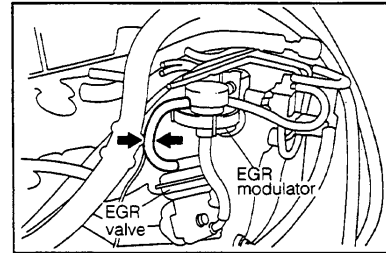


- (2) Dis-connect the plug from vacuum hose.
Connect the MitgVac to the vacuum advancer of distributor,
check the ignition advance timing, while vacuum is applied.

WFE90-MA039

EGR SYSTEM (For US'83)

- (1) Maintain the engine speed approximately at 3500 r.p.m.
- (2) While maintaining the engine speed at this level, clog the
vacuum hose between the EGR valve and the EGR
modulator (port Q).
- (3) Fully close the accelerator while the hose is held clogged.
Ensure that the engine stalls.



WFE90-MA040

MAINTENANCE

POWER TRANSMITTING SYSTEM

CLUTCH

Check of clutch

- (1) Adjust the clutch pedal height by means of the set bolt.

Clutch Pedal Installation Height:

216 - 226 mm (8.5 - 8.9 inches)

NOTE:

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

- (2) Connect the clutch cable to the clutch pedal. Adjust the clutch free travel.

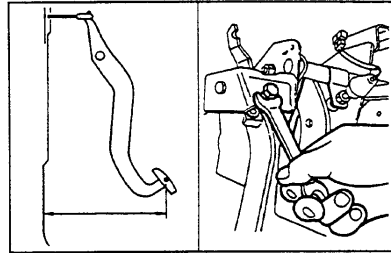
(Left hand drive vehicle): Adjust the clutch free travel by moving the clip of the clutch cable.

(Right hand drive vehicle): Adjust the clutch free travel by turning the knob for adjusting the play of the clutch cable.

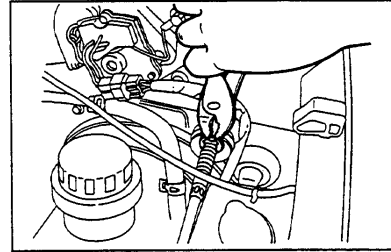
Specified Clutch Free Travel: 18 - 27 mm
(0.709 - 1.063 inches)

NOTE:

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



WFE90-MA041



WFE90-MA042

TRANSMISSION & DIFFERENTIAL

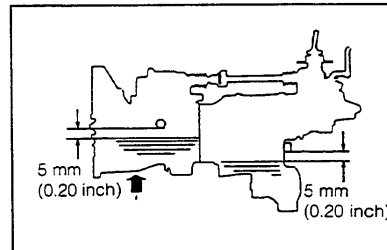
Checking of oil level and leakage

- (1) Checking of oil level and leakage

Oil should be up to the filler plug hole.

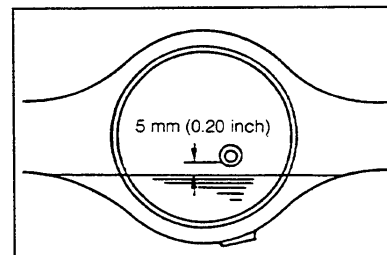
Add oil if low and inspect for oil leakage.

- (2) Oil change



WFE90-MA043

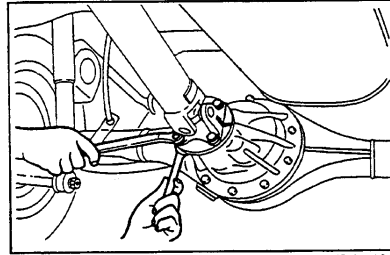
		Grade/Viscosity	liter
Transmission		API GL-3 or GL-4/SAE 75W-90	1.7
Transfer	Full time	API GL-3 or GL-4/SAE 75W-90	1.7
	Part time	↑	1.4
Differential	Front	API GL-5/SAE90 or 80W-90	0.9
	Rear	↑	1.95



WFE90-MA044

PROPELLER SHAFT

Check of propeller shaft
Checking of propeller shaft for tightness damage and rattle



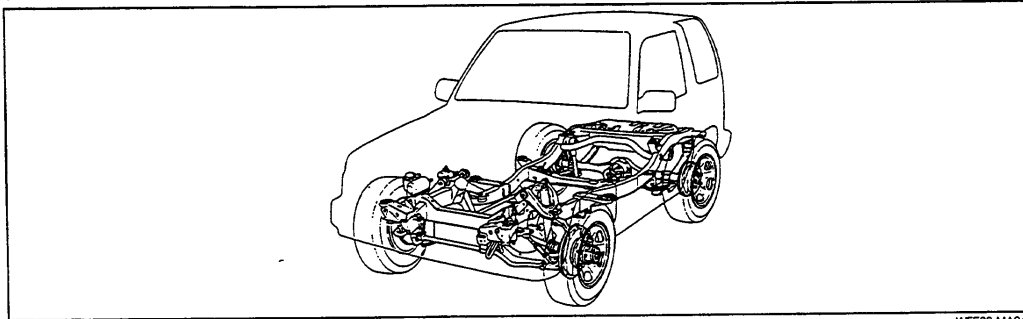
WFE90-MA045

SUSPENSION SYSTEM

SUSPENSION ARM, CONTROL ARM AND DUST COVER

Check of following parts

- (1) Check the suspension arm for damage.
- (2) Check the control arm, rod for damage.
- (3) Check the dust cover for cracking, damage or tears.
- (4) Check all parts of suspension for tightness.
- (5) Check the arm connecting section for excessive play.



WFE90-MA046

SHOCK ABSORBER

Check of performance

Bounce the front end of the vehicle and check that the bound and rebound action should be quickly damped.

Check of leakage and damage
Check fluid leakage and damage.

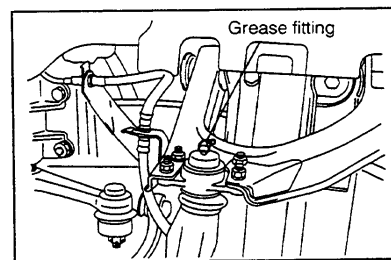
WFE90-MA047

SUSPENSION BALL JOINT

Grease apply of suspension ball joints

Apply grease to the upper arm ball joint and lower arm ball joint.

Grease to be used: Chassis grease



WFE90-MA048

MAINTENANCE

RUNNING SYSTEM

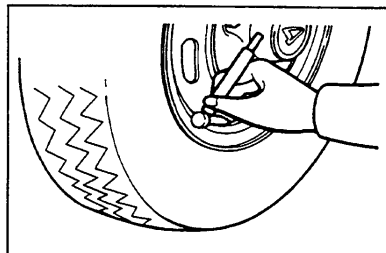
TIRES

Air pressure

- (1) Check to see if the tire air pressure conforms to the specification, using a tire gauge.
- (2) Ensure that no air leaks from the tire valve and that the valve cap is attached.

NOTE:

For the specified air inflation pressure, see the caution plate attached to the vehicle. Be very careful not to overinflate the tires excessively.



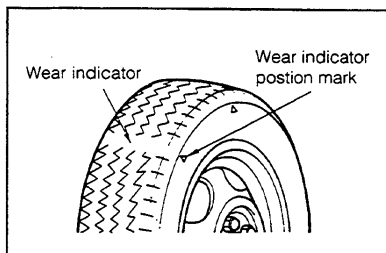
WFEB90-MA102

Wear

- (1) Inspect the tread section for wear. Ensure that the groove depth is at least 1.6 mm (0.063 in.).

NOTE:

Care must be exercised as to the wear indicator mark. (When the remaining groove depth is reduced to less than 1.6 mm (0.063 in.), the wear indicator mark will become visible.)

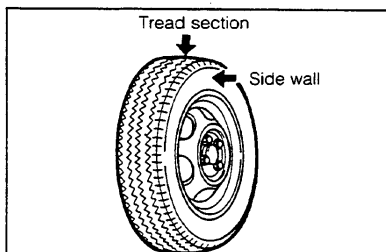


WFEB90-MA103

- (2) Inspect the tire for uneven wear, ridge and other abnormal wear.

NOTE:

If the tires exhibit an uneven wear pattern, check the wheel balancing and front wheel alignment.



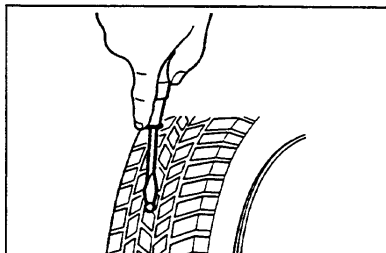
WFEB90-MA104

Crack and damage

Check that the tread section and side wall section are free from cracks and damage.

Objects caught in tire pattern

Ensure that no nail, metal chip, gravel or other foreign matters lodge at the grooves of each tire, or none of them sticks into the tire.



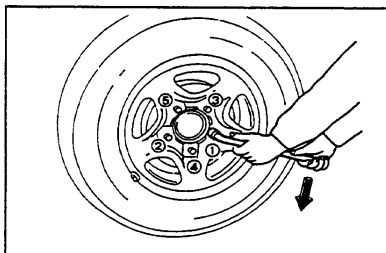
WT90-MA052

WHEELS

Looseness of lug nuts and bolts

Check the wheel lug nuts and bolts for looseness, using a wheel nut wrench.

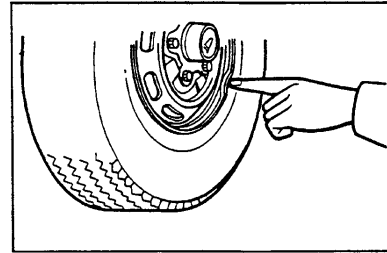
Tightening Torque: 88.2 - 117.6 N·m (9.0 - 12.0 kgf·m)



WT90-MA053

Damage of rim and disc

Check that the rim and disc are free from damage.

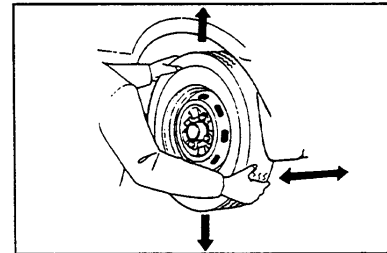


WT90-MA054

WHEEL BEARING

Rattle

- (1) Move the tire up and down, holding it at the top and bottom sections by your hands. Ensure that the rear wheel bearing exhibits no excessive play.
- (2) Ensure that no abnormal sound is emitted when the wheel is rotated.
- (3) If excessive rattle is found, perform the check while the brake pedal is being depressed.
- (4) If the rattle disappears, it indicates that the wheel bearing is loose. If the rattle persists, it indicates that the knuckle section or other suspension parts are loose.



WF90-MA105

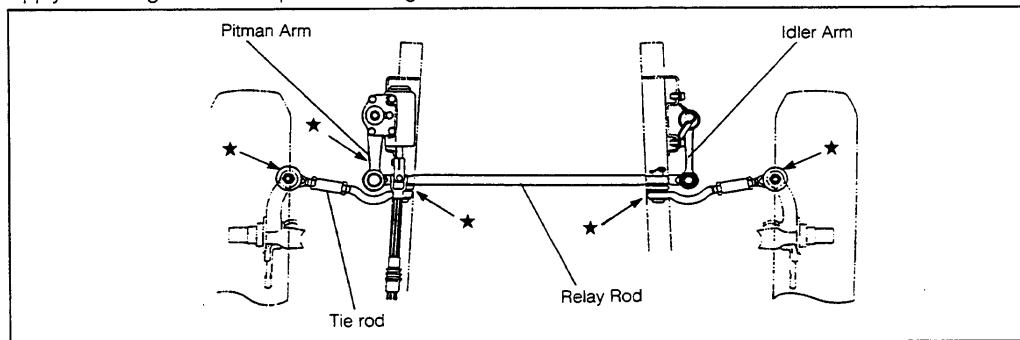
1. Steering ball joint

Inspection

Check that the castle nut at each ball joint section of the steering linkage is properly tightened. Also, check the cotter pins for proper installation.

Grease Application

Apply chassis grease to the points bearing a "★" mark, as shown in the illustration



WF90-MA056

MAINTENANCE

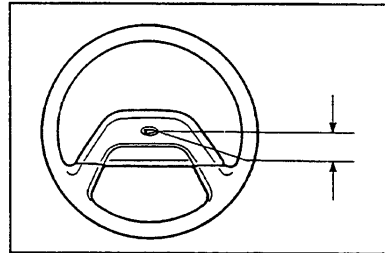
STEERING SYSTEM

STEERING WHEEL

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.

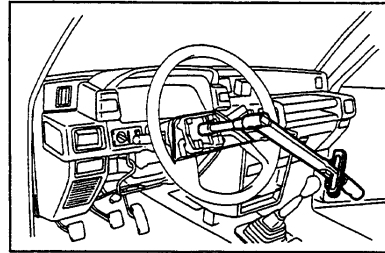
Specified Value: 0 - 30 mm (0 - 1.18 inches)



WFE90-MA057

Check of steering wheel tightness

Tightening Torque: 29.4 - 58.8 N·m (3.0 - 5.0 kgf·m)

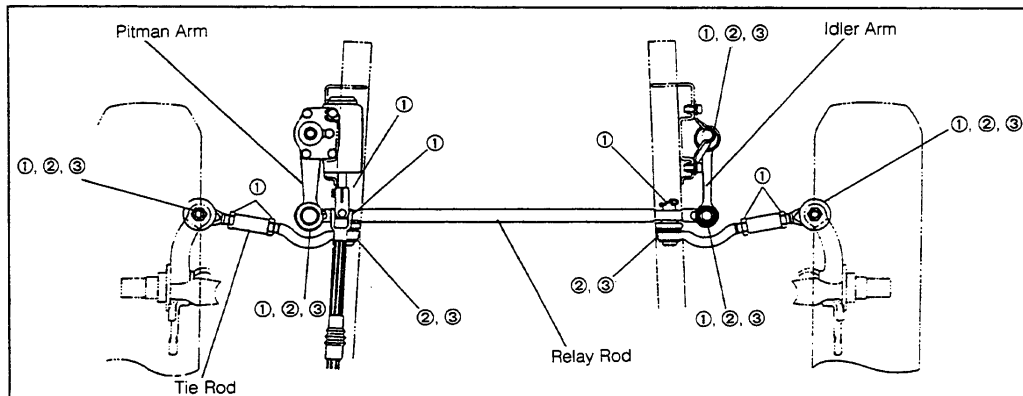


WFE90-MA058

LINKAGE & DUST COVER

Check of steering linkage and dust cover.

- ① Tightness
- ② Rattle
- ③ Damage



WFE90-MA059

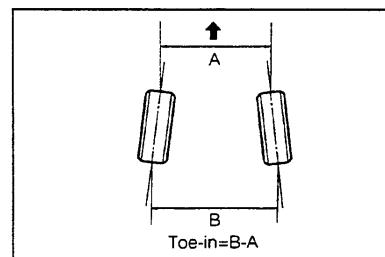
WHEEL ALIGNMENT

Check of wheel alignment

- (1) Toe-in measurement

Measure the distance between the marks at the front side of each front wheel. Determine the toe-in amount by calculating the difference.

Specified Value: 1.0 - 4.0 mm (0.039 - 0.157 inch)



WFE90-MA060

- (2) Camber measurement
Specified Camber Amount: $1^{\circ} \pm 10'$

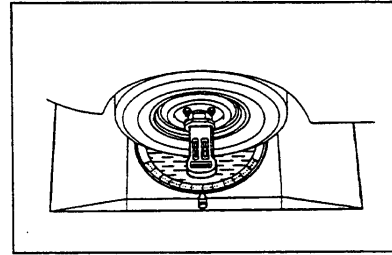
NOTE:

The measurement should be performed in the same way at the right and left wheels.

- (3) Caster measurement
Specified Caster Amount: $2^{\circ} \pm 30'$
Specified Kingpin Angle: $9^{\circ} \pm 30'$

NOTE:

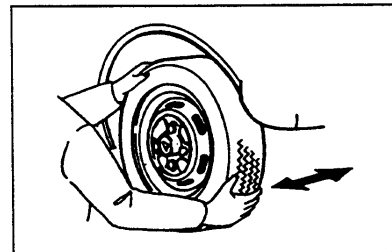
For the alignment checks, turn the steering wheel until the reading of the turning radius gauge becomes 20 degrees at the right wheel or the left wheel, respectively.



WFE90-MA061

KNUCKLE

Check of knuckles rattle



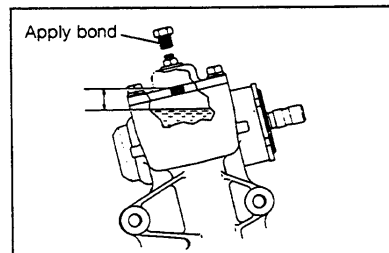
WFE90-MA062

GEAR BOX

- Check of oil level of steering gear box
Check the steering gear box for oil level.
Specified Value: 13 - 23 mm (0.512 - 0.906 inch)

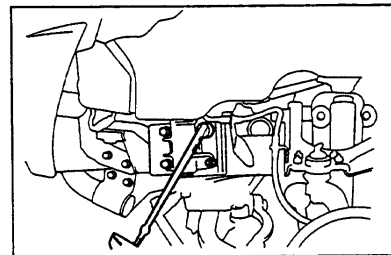
NOTE:

Apply the following bond to the attaching bolt.
Bond: Daihatsu genuine sealer (999-0480-8U90-00)



WFE90-MA063

- Check of steering gear box tightness
Tightening Torque: 73.5 - 102.9 N·m (7.5 - 10.5 kgf·m)



WFE90-MA064

MAINTENANCE

POWER STEERING

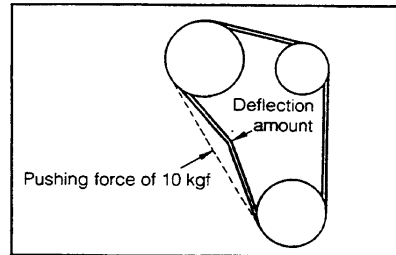
Check of power steering belt

(1) Check of damage

(2) Check of V-belt tension

Check the belt tension by measuring the deflection amount of the V-belt.

9 - 11 mm (0.354 - 0.433 inch)
when a force of 10 kgf is applied:



WFE90-MA065

Check power steering fluid

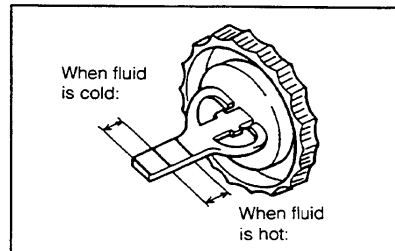
(1) Check the fluid level. If the fluid level is lower than the specified level replenish the Castle Power Steering Fluid.

Specification:

The fluid level should be within the "HOT" level range.

(2) Checking of fluid leakage

Check the connections of the hydraulic tube, steering gear housing and pump.



WFE90-MA066

BRAKING SYSTEM

BRAKE PEDAL

Check of brake pedal and parking brake

(1) Pedal free travel check

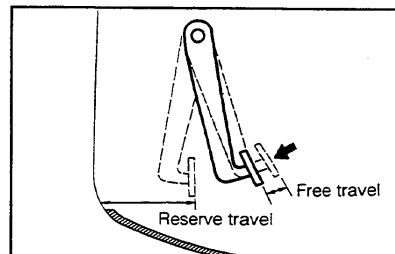
Pedal free travel: 1 - 3 mm (0.04 - 0.12 inch)

(2) Pedal reserve travel check

Pedal reserve travel: More than 80 mm (3.15 inch)

NOTE:

The brake pedal reserve travel should be measured from the body metal by rolling up the carpet and floor mat.

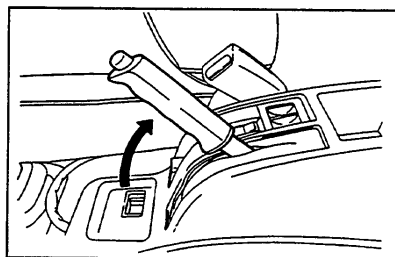


WFE90-MA067

PARKING BRAKE

With a force of 245 N (25 kgf), pull up the parking brake lever slowly and count the notches.

Specified working travel: 4 - 6 notches



WFE90-MA068

DISC PAD

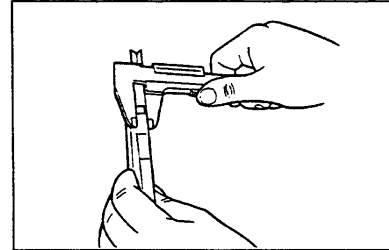
Check of disc pad

(1) Checking of brake disc pad for thickness, wear and damage

- 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.

(2) Checking of brake disc for wear, damage

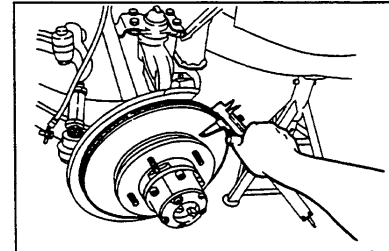
- ① Clean the brake disc surface and measure the disc thickness.



WFE90-MA069

	mm (inch)	
	Standard	Ventilation
Specified thickness	12.5 (0.49)	18.0 (0.71)
Minimum limit	11.5 (0.45)	17.0 (0.67)

Difference in stock thickness on the same circumference: Not to exceed 0.015 mm (0.0006 inch)



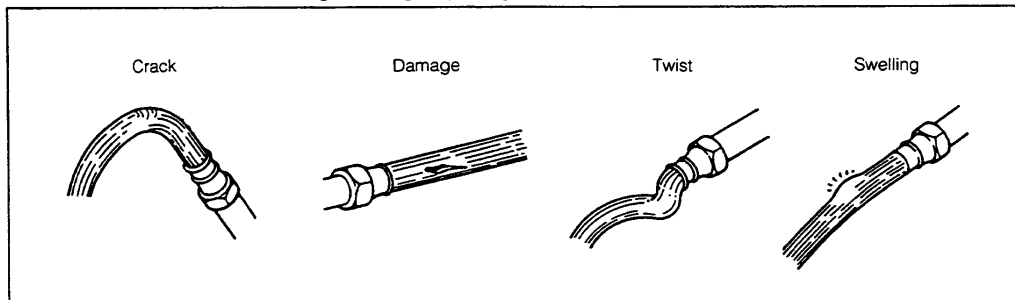
WFE90-MA070

BRAKE HOSE & TUBE

Check of brake hose and tube

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

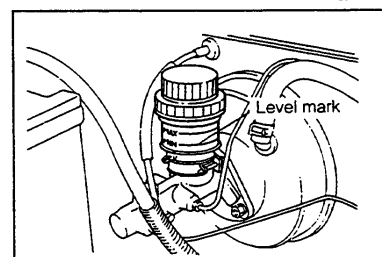


WFE90-MA071

BRAKE FLUID

Check of brake fluid

If the fluid level is below of the MIN line, check for leak in the hydraulic system and add fluid up to the MAX line.



WFE90-MA072

MAINTENANCE

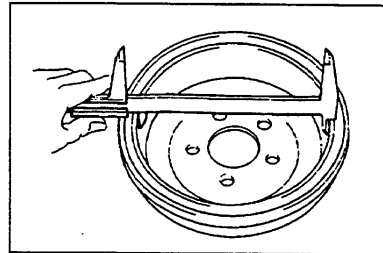
BRAKE DRUM & LINING

Check of brake drum and lining

- (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)

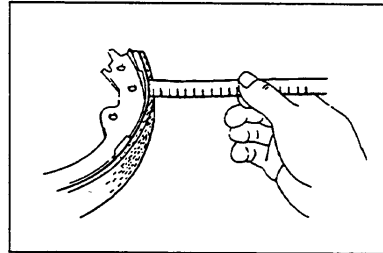


WFE90-MA073

- (2) Inspect the brake linings for wear.

Specified Value: 5.0 mm (0.197 inch)

Allowable Limit: 1.0 mm (0.0393 inch)



WFE90-MA074

BRAKE BOOSTER

Check the operation of the brake booster following the procedure given below.

- (1) With the engine stopped, depress the brake pedal several times. The travel distance should not change.
- (2) With the brake pedal slightly depressed, start the engine. The pedal should move down slightly when the engine starts.
- (3) Depress the brake pedal, stop the engine and hold the pedal, stop the engine and hold the pedal for about 30 seconds. The pedal should neither sink nor rise.
- (4) Restart the engine, run it for about a minute and turn it off. Then depress the brake pedal firmly several times. The pedal travel distance should decrease with each application.

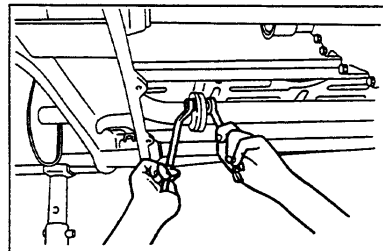
WFE90-MA075

CHASSIS & BODY

EXHAUST PIPE & MUFFLER

Check muffler, exhaust pipe, mountings

- (1) Checking of exhaust pipe for tightness.
- (2) Checking of muffler, exhaust pipe, mountings for damage.



WFE90-MA076

ALL DOORS & HOOD

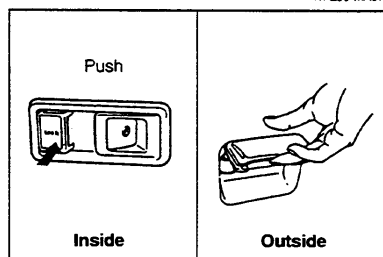
Check all doors, hood

Door

- (1) Doors locks should operate properly.
- (2) Door locks should not hit striker.

Hood

- (1) Auxiliary catch should operate properly.
- (2) Hood should be locked securely when closed.



WFE90-MA077

SEAT BELT

Check of seat belt

Checking of seat belts for operation and looseness

- (1) Check that the belt components are free from damage.
- (2) Check that the tongue plate can be released smoothly when the buckle button is pressed.
- (3) Check that the tongue plate can be locked securely when inserted into the buckle.

WFE90-MA078

CHASSIS GREASE

Check of chassis grease

Apply grease to grease fittings of chassis.

- (1) Check the each grease fittings of chassis for grease. condition.
- (2) Apply lithium grease to the grease fittings given below.
 - (1) Steering related parts
 - (2) Propeller shaft
 - (3) Suspension related parts

WFE90-MA079

Check of other bolts, nuts & wheel hub nuts

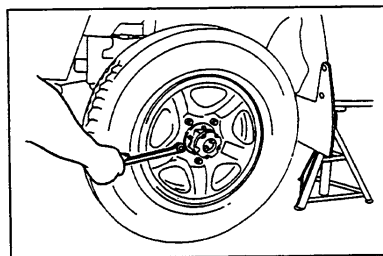
Retightening of bolts and nuts on chassis and body.

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

Check of wheel hub nuts

Retighten the hub nuts.

Tightening torque: 9.0 - 12.0 kg-m (65.1 - 86.7 ft-lb)



WFE90-MA080

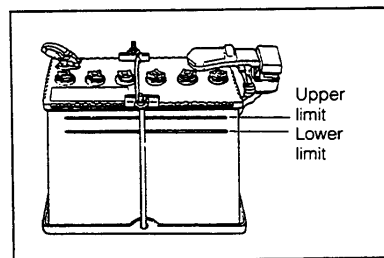
ELECTRICAL SYSTEM

BATTERY

Check of following parts

Check the battery electrolyte level.

The electrolyte level must be between upper and lower levels.



WFE90-MA081

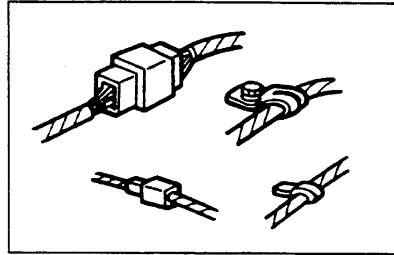
MAINTENANCE

WIRE HARNESS

Check of wire harness

Check of wire harness for damage

- (1) Check the wiring for damage or looseness.
- (2) Check each clamp and connection for looseness.



WFE90-MA082

LIGHTING SYSTEM METER & GAUGE

Check of lighting system, meter & gauges

Check of lighting system, meter & gauges for function

- (1) Check headlamps, turn signal lamps, stop lamps, back-up lamps, tail lamps, licence plate lamps, hazard warning lamps and meter illumination lamps for function.
- (2) Check fuel gauge, water temperature gauge, charge warning lamp, oil pressure warning lamp, parking brake warning lamp, stop lamp warning lamp, brake fluid warning lamp and speedometer for function.

WFE90-MA083