LUBRICATION AND MAINTENANCE

CONTENTS

Maintenance and lubrication service recommendations have been compiled to provide maximum protection for the vehicle owner's investment against all reasonable types of driving conditions.
Since these conditions vary with the individual vehicle owner's driving habits, the area in which the vehicle is operated and the type of driving to which the vehicle is subjected, it is necessary to prescribe lubrication and maintenance service on a time frequency as well as mileage interval basis.
Oils, lubricants and greases are classified and graded according to standards recommended by the Society of Automotive Engineers (SAE), the American Petroleum Institute (API) and the National Lubricating Grease Institute (NLGI).

MAINTENANCE SCHEDULES

Information for service maintenance is provided in the "SCHEDULED MAINTENANCE TABLE".
Three schedules are provided: one for "Required Maintenance", one for "General Maintenance" and one for "Severe Usage Service".

SEVERE SERVICE

Vehicles operated under severe service conditions will require more frequent service.
Component service information is included in appropriate units for vehicles operated under one or more of the following conditions:

(1) Trailer towing or police, taxi, or comercial type operation
(2) Operation of vehicle:
  (a) Short-trip operation at freezing temperatures (engine not thoroughly warmed up)
  (b) More than 50% operation in heavy city traffic during hot weather above 32°C (90°F)
  (c) Extensive idling
  (d) Driving in sandy areas
  (e) Driving in salty areas
  (f) Driving in dusty conditions
  (g) Off-road driving

ENGINE OIL

The SAE grade number indicates the viscosity of engine oils, for example SAE 30, which is a single grade oil. Engine oils are also identified by a dual number, for example SAE 10W-30, which indicates a multigrade oil.
The API classification system defines oil performance in terms of engine usage. Only engine oil designed "For Service SE" or "For Service SF" when available, should be used. These oils contain sufficient chemical additives to provide maximum engine protection. Both the SAE grade and the API designation can be found on the container.

GEAR LUBRICANTS

The SAE grade number also indicates the viscosity of multipurpose gear lubricants.
The API classification system defines gear lubricants in terms of usage. Gear lubricants conforming to API GL-4 or GL-5 with a viscosity of SAE 80W or SAE 90 are usually recommended for the manual transmission and rear axle (conventional differential), and MITSUBISHI genuine gear oil Part No. 8149630EX or Mopar Hypoid Gear Lubricant Part No. 3744994 or 3744995 plus Mopar Hypoid Gear Oil Additive/ Friction Modifier Part No. 4057100, or equivalent, for a limited slip differential.

LUBRICANTS – GREASES

Semi-solid lubricants bear the NLGI designation and are further classified as grades 0, 1, 2, 3, etc.
Whenever "Chassis Lubricant" is specified, Multipurpose Grease NLGI grade #2EP should be used.

FUEL USAGE STATEMENT

Use gasoline having a minimum anti-knock index (Octane Value) of 87 (R + M)/2. This designation is comparable to a Research Octane Number of 91.
Unleaded gasoline only must be used. All vehicles so equipped have labels located on the instrument panel and on the back of fuel filler lid that state, "UNLEADED GASOLINE ONLY". These vehicles also have fuel filler tubes designed to accept only the smaller diameter unleaded gasoline dispensing nozzles.

MATERIALS ADDED TO FUEL

Indiscriminate use of fuel system cleaning agents should be avoided. Many of these materials intended for gum and varnish removal may contain highly active solvents or similar ingredients that can be harmful to gasket and diaphragm materials used in fuel system component parts.

Scheduled Maintenance Services for Emission Control and Proper Vehicle Performance

Inspection and Service should be performed anytime a malfunction is observed or suspected. Retain receipts for vehicle emission services to protect your emission warranty.

EMISSION CONTROL SYSTEM MAINTENANCE	SERVICE INTERVALS	MILEAGE IN THOUSANDS	7.5	15	22.5	30	37.5	45	50
		KILOMETERS IN THOUSANDS	12	24	36	48	60	72	80
CHANGE ENGINE OIL EVERY 12 MONTHS	OR		x	x	x	x	x	x	
REPLACE ENGINE OIL FILTER EVERY 12 MONTHS	OR			x		x		x	
CHECK CONDITION OF DRIVE BELT (FOR WATER PUMP AND ALTERNATOR) AND ADJUST TENSION AS REQUIRED	AT			x				x	
REPLACE DRIVE BELT (FOR WATER PUMP AND ALTERNATOR)	AT					x			
CHECK VALVE CLEARANCE AND ADJUST AS REQUIRED	AT			x		x		x	
CHECK IGNITION TIMING AND ADJUST AS REQUIRED EVERY 5 YEARS	OR								x
CLEAN CARBURETOR CHOKE MECHANISM AND LINKAGE	AT					x			
REPLACE FUEL FILTER (EXCEPT FILTER IN FUEL TANK)	AT								x
CHECK FUEL SYSTEM* (CAP, TANK, LINE, AND CONNECTIONS) FOR LEAKS EVERY 5 YEARS	OR								x
REPLACE AIR CLEANER FILTER	AT					x			
REPLACE SPARK PLUGS	AT					x			
REPLACE IGNITION CABLES* EVERY 5 YEARS	OR								x
REPLACE VACUUM HOSES, SECONDARY AIR HOSES, AND CRANKCASE VENTILATION HOSES EVERY 5 YEARS	OR								x
REPLACE FUEL HOSES, WATER HOSES, AND FUEL VAPOR HOSES* EVERY 5 YEARS	OR								x
CHECK CRANKCASE EMISSION CONTROL SYSTEM AND CLEAN AS REQUIRED EVERY 5 YEARS	OR								x
CHECK EVAPORATIVE EMISSION CONTROL SYSTEM (EXCEPT CANISTER) FOR LEAKS AND CLOGGING EVERY 5 YEARS	OR								x
REPLACE CANISTER	AT								x

Note: *For California vehicles, this maintenance is recommended by Mitsubishi Motor Sales of America, Inc., but is not required by the warranty on these parts (except water hoses).

General Maintenance Service for Proper Vehicle Performance

GENERAL MAINTENANCE	SERVICE INTERVALS			MILEAGE IN THOUSANDS	7.5	15	22.5	30	37.5	45	50
				KILOMETERS IN THOUSANDS	12	24	36	48	60	72	80
COOLING SYSTEM	CHECK AND SERVICE AS REQUIRED EVERY 12 MONTHS										
	DRAIN, FLUSH, AND REFILL EVERY 24 MONTHS	OR						•			
BRAKE FLUID	CHECK FLUID LEVEL AND INSPECT FOR LEAKS	AT						•			
	CHANGE EVERY 4 YEARS										
FRONT DISC BRAKE PADS	INSPECT FOR WEAR	AT				•		•		•	
REAR DRUM BRAKE LININGS AND REAR WHEEL CYLINDERS	INSPECT FOR WEAR AND LEAKS	AT						•			
BRAKE HOSES	CHECK FOR DETERIORATION OR LEAKS	AT				•		•		•	
BALL JOINT AND STEERING LINKAGE SEALS, AND DRIVE SHAFT BOOTS	INSPECT FOR GREASE LEAKS OR DAMAGE	AT						•			
UPPER CONTROL ARM BUSHINGS	LUBRICATE GREASE	AT				•		•		•	
FRONT WHEEL BEARINGS	INSPECT FOR GREASE LEAKS	AT						•			
FRONT AXLE AND REAR AXLE*[1]	CHECK OIL LEVEL	AT						•			
MANUAL TRANSMISSION AND TRANSFER CASE	CHANGE OIL (SEVERE USAGE CONDITIONS ONLY)	AT						•			
AUTOMATIC TRANSMISSION AND TRANSFER CASE	CHANGE FLUID	AT						•			
REAR AXLE*[2]	CHANGE OIL	AT				•		•		•	

Note: *[1] Not applicable to vehicles with a limited slip differential
*[2] Applicable only to vehicles with a limited slip differential

Severe Usage Service

The maintenance items should be performed according to the following table:

MAINTENANCE ITEM	SERVICE TO BE PERFORMED	MILEAGE INTERVALS– KILOMETERS IN THOUSANDS (MILES IN THOUSANDS)							SEVERE USAGE CONDITIONS							
		12 (7.5)	24 (15)	36 (22.5)	48 (30)	60 (37.5)	72 (45)	80 (50)	A	B	C	D	E	F	G	H
ENGINE OIL	CHANGE EVERY 3 MONTHS OR-	EVERY 4,800 KM (3,000 MILES)							○	○	○	○			○	
ENGINE OIL FILTER	REPLACE EVERY 6 MONTHS OR-	EVERY 9,600 KM (6,000 MILES)							○	○	○	○			○	
AIR CLEANER FILTER	REPLACE	MORE FREQUENTLY							○				○			
CRANKCASE EMISSION CONTROL SYSTEM	CHECK AND CLEAN AS REQUIRED	MORE FREQUENTLY							○							
SPARK PLUGS	REPLACE		•		•		•			○		○				
FRONT DISC BRAKE PADS	INSPECT FOR WEAR	MORE FREQUENTLY							○					○		
REAR DRUM BRAKE LININGS AND REAR WHEEL CYLINDERS	INSPECT FOR WEAR OR LEAKS	MORE FREQUENTLY							○					○		
MANUAL TRANSMISSION AND TRANSFER CASE	CHANGE OIL				•					○					○	○
UPPER CONTROL ARM BUSHINGS	LUBRICATE GREASE	EVERY 12,000 KM (7,500 MILES)							○				○	○		○

Sever usage conditions

A – Driving in dusty conditions
B – Police, taxi, or commercial type operation
C – Extensive idling
D – Short-trip operation at freezing temperatures (engine not thoroughly warmed up)
E – Driving in sandy areas
F – Driving in salty areas
G – More than 50% operation in heavy city traffic during hot weather above 32°C (90°F)
H – Off-road driving

LUBRICANT CAPACITIES TABLE AND RECOMMENDED LUBRICANTS

LUBRICANT CAPACITIES TABLE

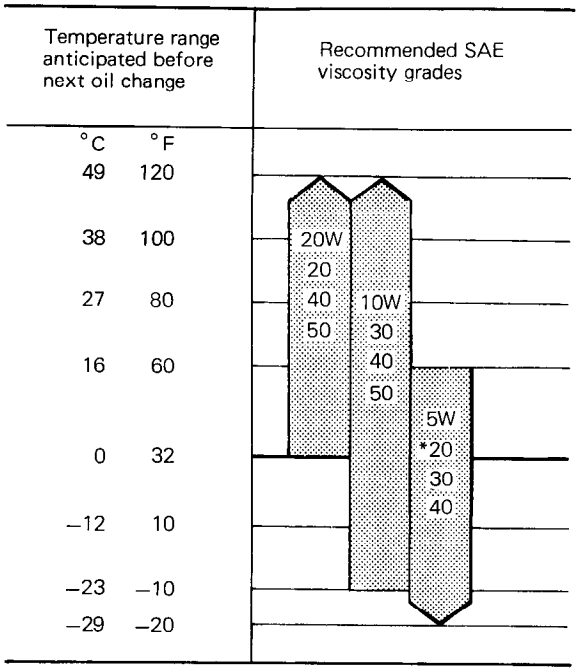
Description	Metric measure	U.S. measure	Imperial measure
Engine oil			
Crankcase (including oil filter)	5.8 liters	6.1 qts.	5.1 qts.
Oil filter	0.50 liter	0.53 qt.	0.44 qt.
Cooling system (including heater and coolant reservoir)	8.0 liters	8.45 qts.	7.04 qts.
Manual transmission	2.2 liters	4.6 pints	3.9 pints
Automatic transmission	6.8 liters	14.4 pints	12.0 pints
Transfer case	2.2 liters	4.6 pints	3.9 pints
Front axle	1.1 liters	2.3 pints	1.9 pints
Rear axle	1.8 liters	3.8 pints	3.2 pints
Power steering	0.9 liter	1.9 pints	1.6 pints
Fuel tank	60 liters	15.9 gals.	13.2 gals.

RECOMMENDED LUBRICANTS

Component	Lubricant specification	Remarks
Engine	API classification SE or SF	For further details, refer to SAE viscosity number
Power steering	Automatic transmission fluid ATF "DEXRON" or "DEXRON II" type	
Manual transmission	API classification GL-4	SAE grade number: SAE 75W-85W SAE 80W
Automatic transmission	Automatic transmission fluid ATF "DEXRON" or "DEXRON II" type	
Transfer case	API classification GL-4	SAE grade number: SAE 75W-85W SAE 80W
Front axle	API classification GL-4 or GL-5	For further details, refer to SAE viscosity number
Rear axle (conventional differential)	API classification GL-4 or GL-5	
Rear axle (limited slip differential)		MITSUBISHI genuine gear oil Part No. 8149630EX or Moper Hypoid Gear Lubricant Part No. 3744994 or 3744995 plus Moper Hypoid Gear Oil Additive/ Friction Modifier Part No. 4057100 or equivalent
Brake and clutch	Conforming to DOT 3	
Front wheel bearing	Multipurpose grease NLGI grade #2EP	
Cooling system	High quality ethylene glycol	Concentration level: 50%
Transmission linkage, parking brake cable mechanism, hood lock and hook, door latch, hatch latch, seat adjuster	Multipurpose grease NLGI grade #2EP	
Door hinges	Engine oil	

SELECTION OF LUBRICANTS

Engine Oil



* SAE 5W-20 is not recommended for sustained high speed vehicle operation.

Front Axle/Rear Axle (Conventional differential)

Lubricant	API classification GL-4 or GL-5
Anticipated temperature range	Viscosity range
Above −23°C (−10°F)	SAE 90 SAE 85W-90 SAE 80W-90
−23°C to −34°C	SAE 80W
(−10°F to −30°F)	SAE 80W-90
Below −34°C (−30°F)	SAE 75W

COOLANT

Relation Between Antifreeze Concentration and Specific Gravity

Coolant temperature °C (°F) and specific gravity					Freezing temperature °C (°F)	Safe operating temperature °C (°F)	Coolant concentration (specific volume)
10 (50)	20 (68)	30 (86)	40 (104)	50 (122)			
1.037	1.034	1.031	1.027	1.023	−9 (15.8)	−4 (24.8)	20 %
1.045	1.042	1.038	1.034	1.029	−12 (10.4)	−7 (19.4)	25 %
1.054	1.050	1.046	1.042	1.036	−16 (3.2)	−11 (12.2)	30 %
1.063	1.058	1.054	1.049	1.044	−20 (−4)	−15 (5)	35 %
1.071	1.067	1.062	1.057	1.052	−25 (−13)	−20 (−4)	40 %
1.079	1.074	1.069	1.064	1.058	−30 (−22)	−25 (−13)	45 %
1.087	1.082	1.076	1.070	1.064	−36 (−32.8)	−31 (−23.8)	50 %
1.095	1.090	1.084	1.077	1.070	−42 (−44)	−37 (−35)	55 %
1.103	1.098	1.092	1.084	1.076	−50 (−58)	−45 (−49)	60 %

NOTE: The information in the table pertains to the antifreeze used by the manufacturer.

Example

The safe operating temperature is −15°C (5°F) when the measured specific gravity is 1.058 at a coolant temperature of 20°C (68°F).

JET VALVE CLEARANCE ADJUSTMENT

Adjustment condition:
Normal operating temperature [Coolant temperature 80-90°C, (176-194°F)]

Caution

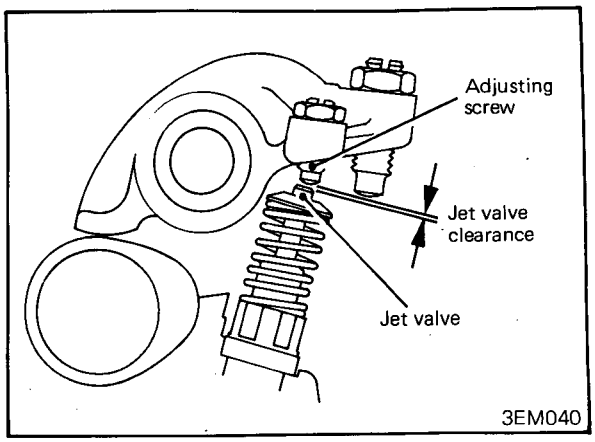
1. **An incorrect jet valve clearance will affect the emission levels and could also cause engine troubles.**
2. **Adjust the jet valve clearance before adjusting the intake valve clearance.**
3. **The jet valve clearance should be adjusted with the intake valve adjusting screw fully loosened.**

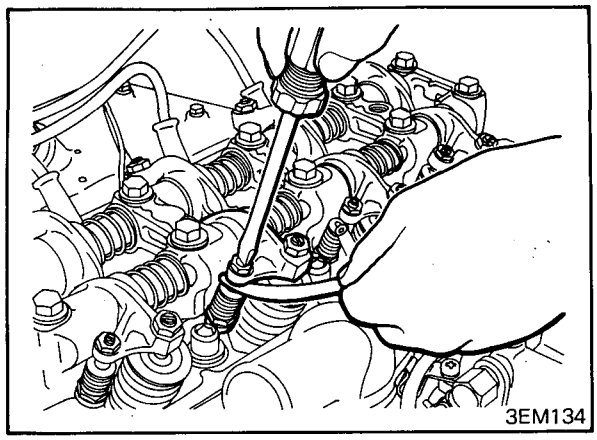
Adjusting procedure:

1. Place piston of No. 1 cylinder at top dead center of compression stroke to adjust valve clearances marked (A) of intake valve side is shown. (5EN062)
2. Back off the intake valve adjusting screw (two or more turns).
3. Loosen the lock nut on the jet valve adjusting screw.
4. Back off the jet valve adjusting screw and place a 0.25 mm (.010 in.) leaf of a feeler gauge between the top end of the jet valve stem and the bottom end of the adjusting screw. (3EM040)

Jet valve clearance (on hot engine)	0.25 mm (.010 in.)

5. Screw in the adjusting screw (clockwise) until the bottom end of the adjusting screw touches the feeler gauge. Since the jet valve spring has a low spring force, use special care not to compress the spring. Be particularly careful if the adjusting screw is hard to turn. (3EM134)
6. While holding the adjusting screw in place with a screwdriver, tighten the lock nut firmly.
7. Check with a feeler gauge lead to ensure a clearance of 0.25 mm (.010 in.)
8. Adjust the intake valve clearance.
9. Place piston of in No. 4 cylinder at top dead center on compression stroke to adjust valve clearances marked (B) of intake valve side. (5EN062)
10. Adjust by repeating Steps 2 through 8.

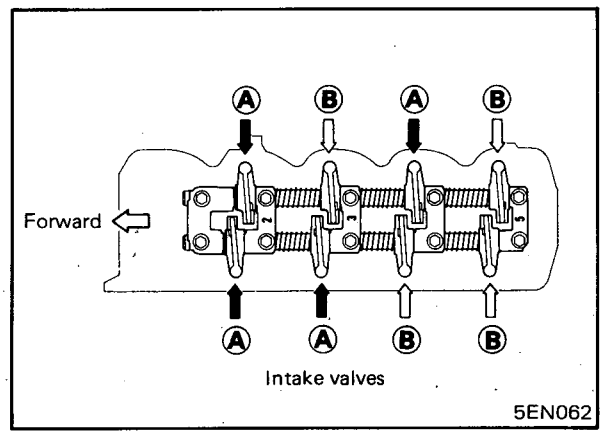




VALVE CLEARANCE ADJUSTMENT

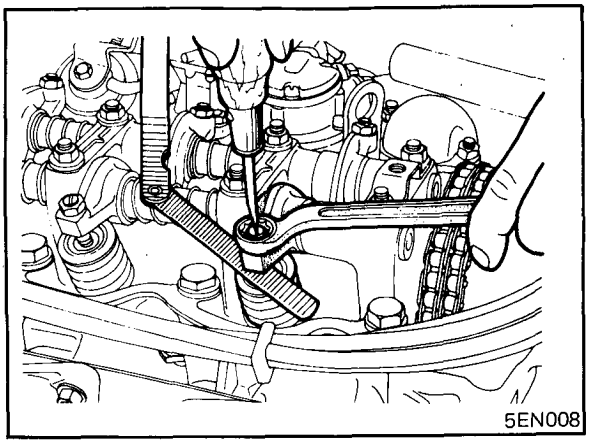
Adjustment condition:
Normal operating temperature [Coolant temperature 80-90°C, (176-194°F)]

1. Place piston of No. 1 cylinder at top dead center of compression stroke to adjust valve clearances marked (A). (5EN062)



2. Loosen nut and adjust to specification with adjusting screw. Then retighten nut. (5EN008)

Valve clearance (on hot engine):	
Intake	0.15 mm (.006 in.)
Exhaust	0.25 mm (.010 in.)


5EN008

3. After nut has been retightened, recheck to ensure clearance is correct.
4. Place piston of No. 4 cylinder at top dead center on compression stroke to adjust valve clearances marked (B). (5EN062)
5. Adjust by repeating Steps 2 and 3.
6. Check idle speed and readjust if necessary.

BASIC IGNITION TIMING ADJUSTMENT

Adjustment condition:
Lights and all accessories off, transmission in neutral and parking brake pulled.

1. Run the cold engine at fast idle until the coolant temperature is 85-95°C (185-205°F).
2. Disconnect the white stripe vacuum hose from the distributor and temporarily plug the hoses.
3. Run the engine at the specified curb idle speed.

Curb idle speed:	
First 500 km (300 miles)	675 $^{+150}_{-100}$ rpm
After 500 km (300 miles)	750 ± 150 rpm

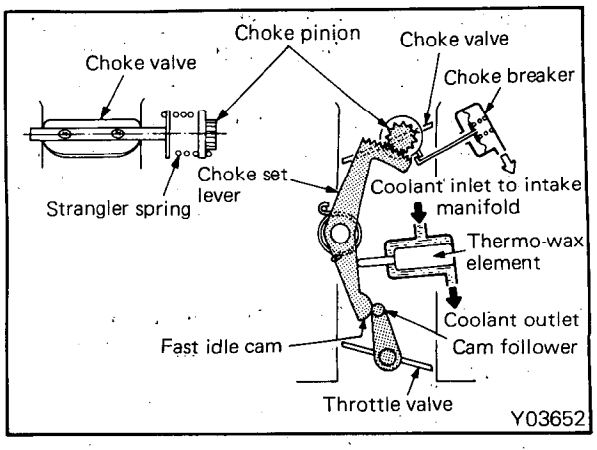
4. Using a timing light, check the ignition timing.
   If it does not meet specifications, adjust the ignition timing by rotating the distributor after loosening the distributor lock nut.

Basic timing	7°BTDC ± 2°

5. Reconnect the white stripe vacuum hose to the distributor.

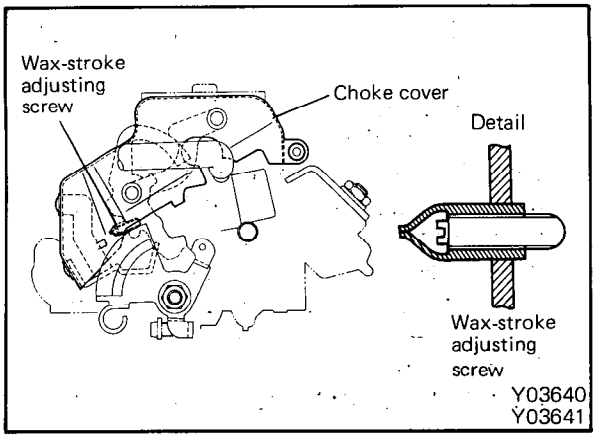
CARBURETOR CHOKE MECHANISM AND LINKAGE

The choke mechanism is used to facilitate engine starting during cold weather. Spray solvent into the end of the auto-choke and throttle valves (where they pass through the air horn) to prevent the choke from becoming stuck from gum deposits on the shaft. At the same time, spray a solvent to clean dirt from the fast idle cam and link.



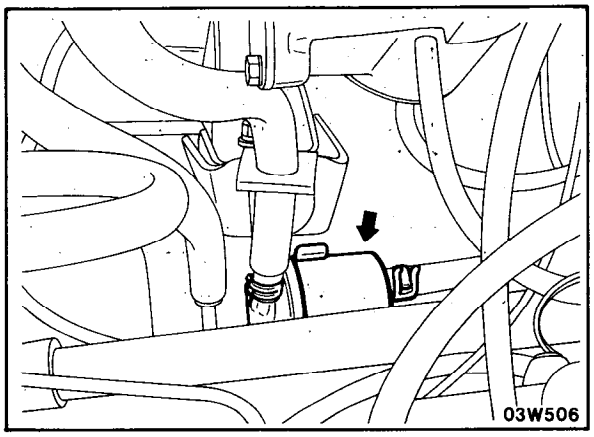
Tamper-Proof Automatic Choke

All carburetors have tamper-proof choke. The choke-related parts are factory-adjusted.



FUEL FILTER (Replace) – except in-tank fuel filter

The fuel filter should be replaced regularly because its performance is reduced by dirt and water collected over an extended period of use. Replace as required.



FUEL SYSTEM (Check for leaks)

Cap, Tank, Lines and Connections

Check for damage or leakage in the fuel lines and connections, and for looseness of the fuel tank cap.

Inspect the surface of fuel hoses for heat and mechanical damage. Hard and brittle rubber, cracking, checking, tears, cuts, abrasions and excessive swelling indicate deterioration of the rubber.

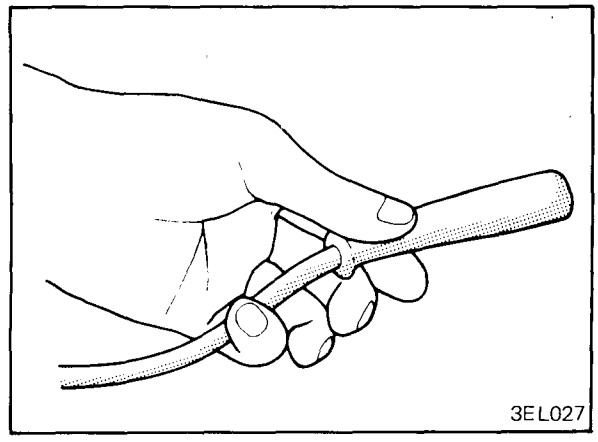
If the fabric casing of the rubber hose is exposed by cracks and abrasions in the fuel system, the hoses should be changed.

IGNITION CABLES (Check and replace)

The ignition cables should be kept clean and properly connected.
Cracked, damaged or faulty cables must be replaced.

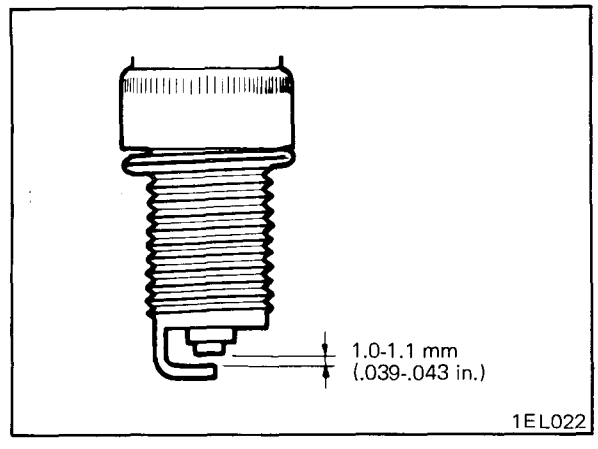
NOTE
When disconnecting an ignition cable, be sure to hold cable cap. If the cable is disconnected by pulling on the cable alone, an open circuit might result.

Resistance	16 kΩ/m



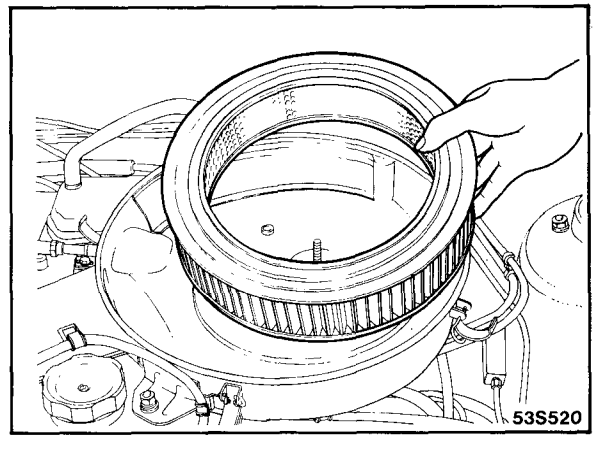
SPARK PLUGS (Replace)

1. Spark plugs must fire properly to assure proper engine performance and emission-control. They should operate satisfactorily in normal vehicle service for the specified maintenance interval or they should be replaced.
2. The new plugs should be checked for the proper gap. (1EL022)

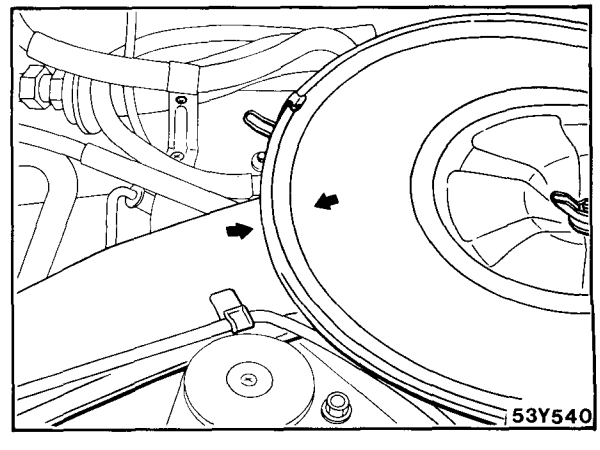


AIR CLEANER FILTER (Relpace)

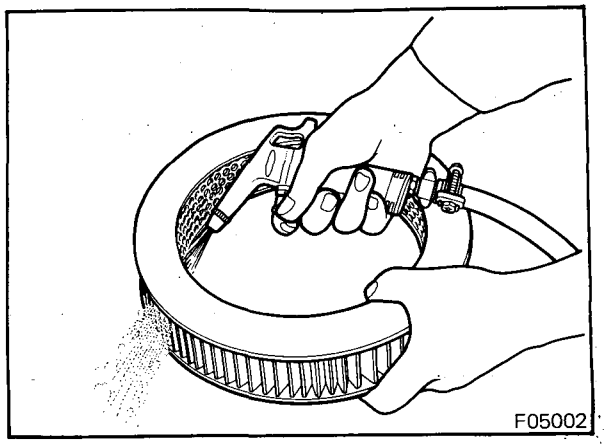
1. Remove the wing nut. Use pliers only if the wing nut is difficult to remove.
2. Unsnap the clips and remove air cleaner cover.
3. Remove the filter and replace it with a new filter. (53S520)



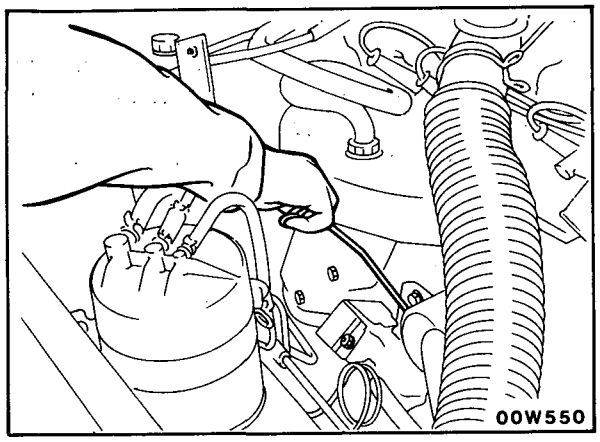
4. Remount the cover, taking care that the arrows are aligned. (53Y540)
5. Tighten the wing nut by hand.



Cleaning
Remove the filter and clean the inside by using compressed air. (Dust can also be removed by gently tapping the filter by hand.)

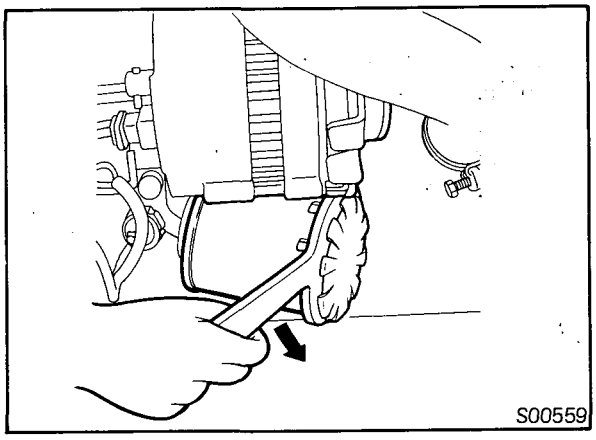


ENGINE OIL (Change)
Always use lubricants which (1) conform to the requirements of the API classification "For Service SE" or "For Service SF" when available, and (2) have the proper SAE grade number for the expected temperature range.
Never use nondetergent or straight mineral oil.



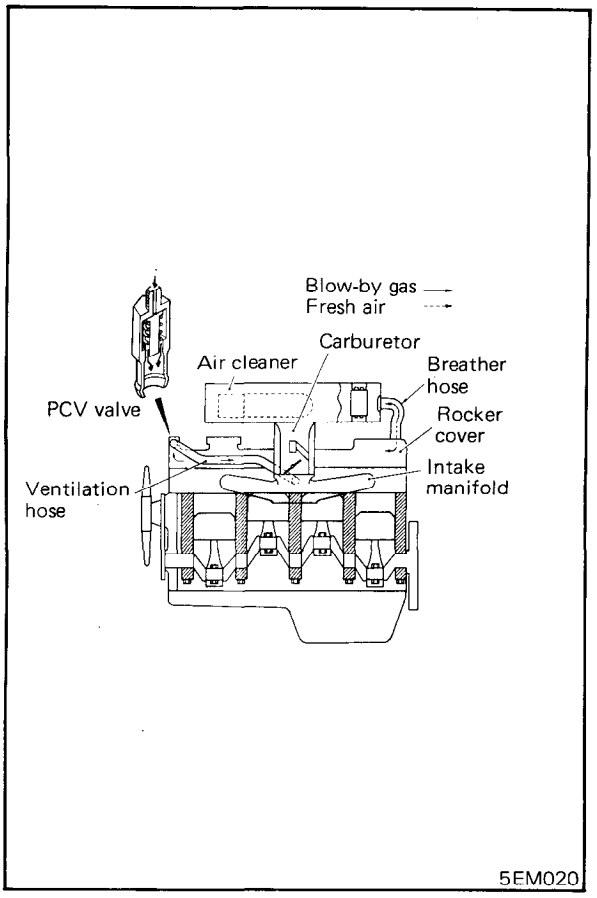
ENGINE OIL FILTER (Replace)
The quality of replacement filters varies considerably. Only high quality filters should be used to assure most efficient service. Genuine oil filters require that the filter be capable of withstanding a pressure of 256 psi and are recommended as follows:

Oil Filter Part Number	
Mitsubishi Genuine Parts	MD031805 or equivalent



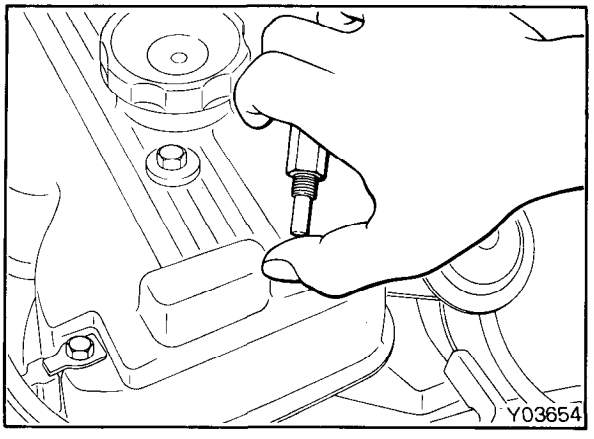
CRANKCASE VENTILATION SYSTEM (Check, and clean as required)

A closed-type crankcase ventilation system is utilized to prevent the blow-by gas from escaping into the atmosphere. This system has a positive crankcase vent valve (PCV valve) at the rocker arm cover.
This system supplies fresh air to the crankcase through the air cleaner. Inside the crankcase, the fresh air is mixed with blow-by gases, and this mixture passes through the PCV valve into the induction system.

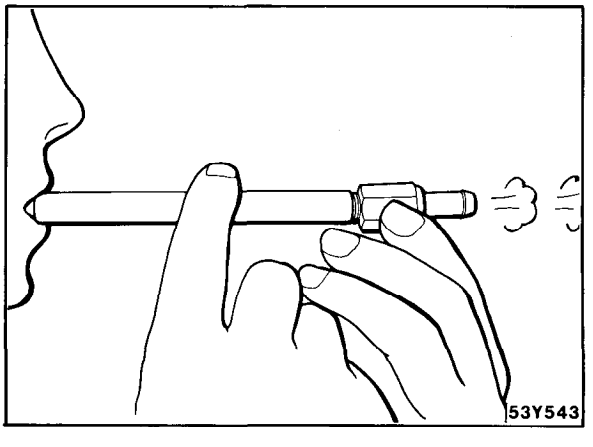


Inspection and Service Procedure

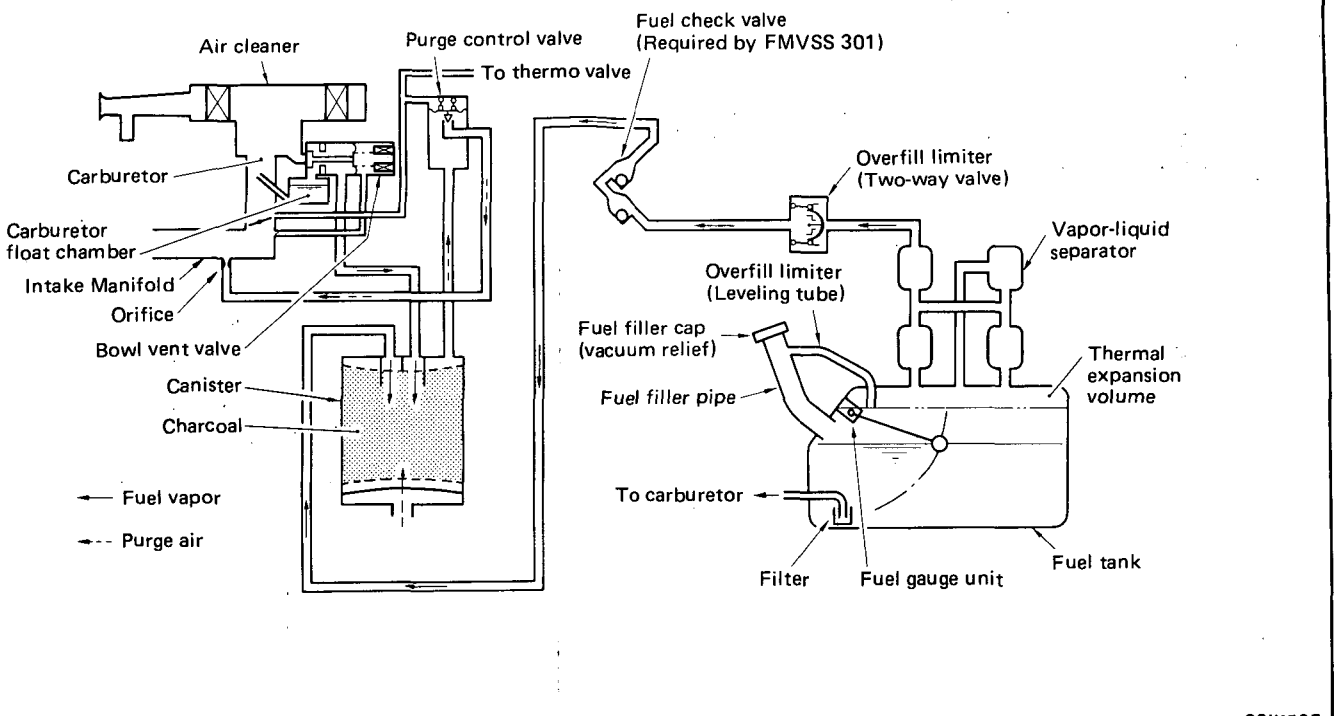
1. Remove PCV valve from rocker cover. If the valve is not clogged, a hissing noise will be heard as air passes through the valve, and a strong vacuum should be felt when a finger is placed over the valve inlet.



2. Disconnect ventilation hose from the PCV valve.
3. Blow from the threaded end of PCV valve. If you cannot blow through it, the PCV valve is plugged. (53Y543)
4. If the ventilation system is restricted, clean the hose and PCV valve with appropriate solvent for dissolving carbon, oil, sludge, etc.



EVAPORATIVE EMISSION CONTROL SYSTEM



Checking Evaporative Emission Control System – (Except canister)

If the fuel-vapor vent line is clogged or damaged, a fuel-vapor mixture will escape into the atmosphere.

Disconnect the line at both ends and blow it clean with compressed air. Remove the filler cap from the filler pipe and check to see if there is any problem with the sealing surface to the filler pipe.

The over-fill limiter (2-way valve) installed in the vapor line between the canister intake and fuel tank outlet should be checked for correct operation.

The purge control valve installed on the vaper line between canister and intake manifold should be checked for correct operation.

Canister (Replace)

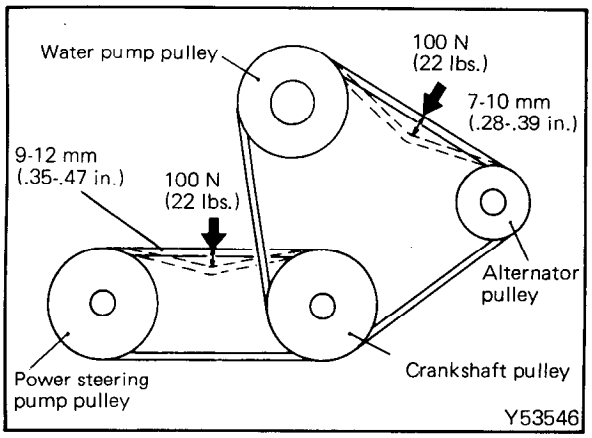
If the canister filter becomes clogged, the purge air volume will decrease and, consequently, the canister capacity will be reduced.

DRIVE BELTS (Check, and adjust or replace)

Inspect the drive belts for cuts and cracks. Replace if necessary.

Check for proper tension. If necessary, adjust the belt tension as follows:

1. Push with a force of 100 N (22 lbs.) on one belt at a point halfway between alternator pulley and water pump pulley and the other belt at a point halfway between the power steering pulley and crankshaft pulley. The specified limits of the belt deflection are shown in the illustration.
2. If belt deflection is not within specified limits, loosen alternator support bolt, alternator brace bolt and power steering pump brace bolt, and move alternator and power steering pump to obtain proper belt deflection at 100 N (22 lbs.) of force. (Y53546)
3. After adjustment, tighten the alternator support bolt, alternator brace bolt and power steering pump brace bolt to specified torque.



Part	Torque Nm (ft.lbs.)
Alternator support bolt	20-25 (14-18)
Alternator brace bolt	12-15 (8.5-11)
Power steering oil pump brace bolt	27-41 (20-30)

COOLING SYSTEM (Check and service)

Check the cooling system for damaged hoses, loose or seeping connections, or other possible causes of coolant leaks.

Coolant Change

1. Remove the radiator cap, radiator drain plug and engine drain plug to drain the coolant.

Caution

When removing the radiator cap, use care to avoid contact with hot coolant or steam. Place a shop towel over the cap and turn the cap counterclockwise a little to let pressure escape through the vinyl tube. After relieving the steam pressure, remove the cap by slowly turning it counterclockwise.

2. Remove the reserve tank and drain the coolant.
3. After draining coolant completely, reinstall the drain plugs and flush the engine and radiator using a radiator cleaning fluid.
4. After the flushing is completed, completely drain the cleaning fluid and install the radiator and engine drain plugs.
5. Refill the system with water and a high quality ethylene glycol antifreeze. A convenient mixture is a 50% water and 50% antifreeze solution. [Freezing point: -36°C (-32.8°F)]. Reinstall radiator cap.
6. After running the engine a while, check the coolant level and add coolant until the specified coolant level is maintained.

7. Add coolant to the reserve tank between the "FULL" and "LOW" mark if necessary.

Caution
Do not overfill the reserve tank.

Antifreeze

Since the cylinder head and water pump body are made of aluminum alloy casting, be sure to use a 50% ethylene glycol antifreeze coolant to provide corrosion protection and freezing prevention.

Recommended antifreeze	Quantity
Permanent type antifreeze	50% or more by volume

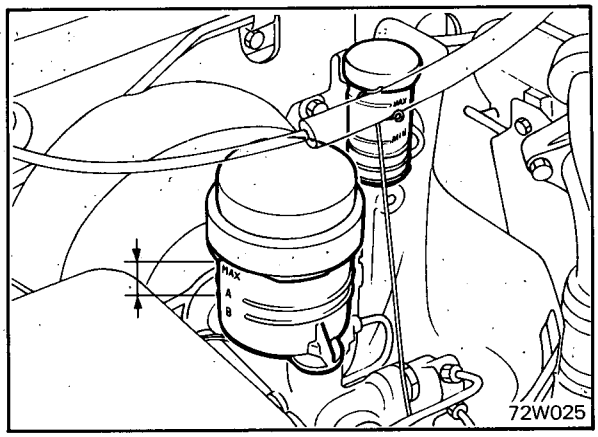
Measurement of Antifreeze Concentration

Run the engine until coolant is fully mixed. Drain some coolant (antifreeze), and measure temperature and specific gravity of the coolant. Determine concentration and safe working temperature. If the coolant is short of antifreeze, add antifreeze up to a concentration of 50%.

NOTE
As the antifreeze also serves as a corrosion inhibitor, be sure to maintain its concentration at 50% even when temperature is high.

BRAKE FLUID (Check fluid level and inspect for leaks)

1. Check to make certain that the brake fluid is between the "MAX" and "A" markings on the fluid reservoir. Fill as required. (72W025)
2. With disc brakes the fluid level can be expected to fall as the brake pads wear. A rapid fluid loss indicates a leak in the brake system which should be inspected and repaired immediately.



Caution
Take care in handling brake fluid as it may cause damage to painted surfaces.

Fluid Change

1. Check the brake system for leakage before replacing brake fluid. Completely drain the brake fluid with the bleeder screws loosened on each brake and refill the brake system with new brake fluid.

Recommended fluid .....
Brake fluid conforming to DOT3

2. The reservoir cap must be fully tightened to avoid contamination from foreign matter or moisture.

DO NOT ALLOW PETROLEUM BASE FLUID TO CONTAMINATE THE BRAKE FLUID – SEAL DAMAGE WILL RESULT –

BRAKE HOSES (Check for deterioration or leaks)

Inspection of brake hoses and tubes should be included in all brake service operations. The hoses should be checked for:
(1) Correct length, and for severe surface cracking, pulling, scuffing or worn spots. (If the fabric casing of the hoses is exposed by cracks or abrasion in the rubber hose cover, the hoses should be replaced.)
(2) Faulty installation, case twisting or friction against wheels, tires or chassis.

BRAKES

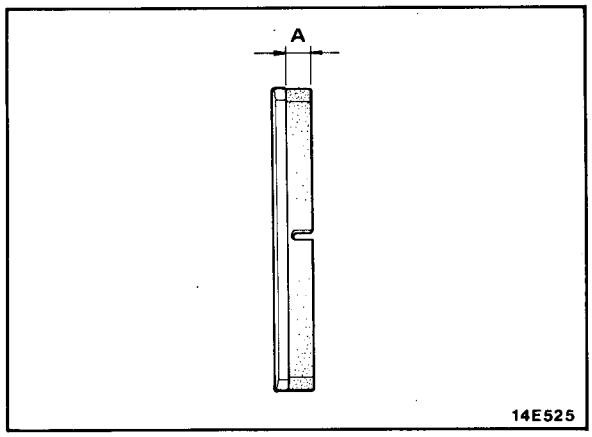
1. Inspect the disc brakes for pad wear and proper operation, and the rear brake linings and wheel cylinders for wear and leaks respectively. If the vehicle is driven in dusty or salty areas, it should be inspected more frequently.
2. The frequency of these inspections depends upon driving conditions, such as traffic or terrain, and upon the driving habits of the owner.

Front Disc Brake Pads (Inspect for wear)

Check for fluid contamination and wear. Replace complete set of pads if defective. (14E525)

Caution
The pads for the right and left wheels should be replaced at the same time. Never split or intermix brake pad sets. All four pads must be replaced as a complete set.

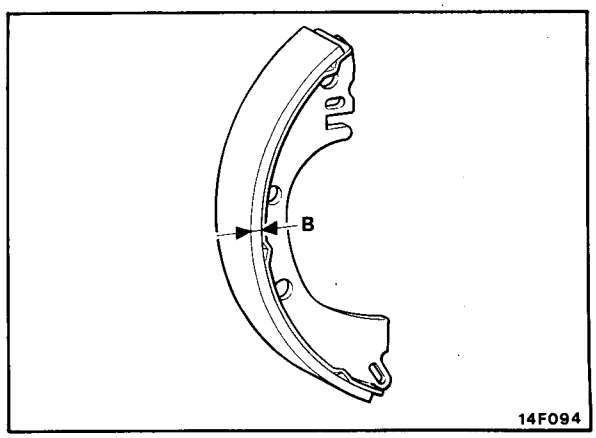
Thickness of lining "A"
Standard value ..... 10.5 mm (.41 in.)
Service limit ..... 1.0 mm (.04 in.)



Rear Drum Brake Linings and Wheel Cylinders (Inspect for wear and leaks)

1. Remove the brake drum and check the thickness of brake shoe lining for wear. (14F094)

Thickness of lining "B"
Standard value ..... 4.6 (.18 in.)
Service limit ..... 1.0 (.04 in.)

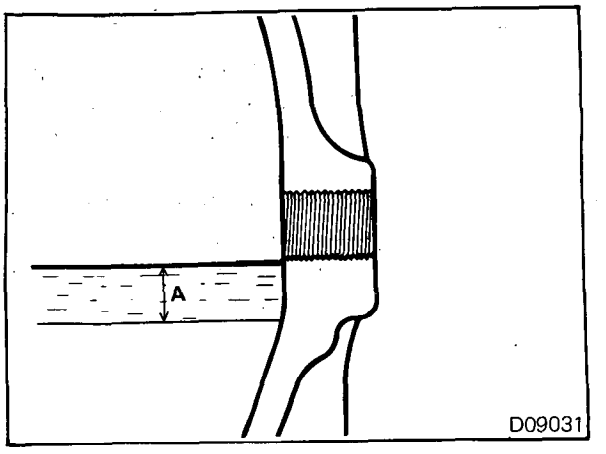


Check the automatic brake adjusting system by hand to see if it operates smoothly. Also see if the gears are in proper mesh with each other. To assure smooth functioning, apply a very thin coat of grease to the friction surface of adjuster and link shaft.
2. Inspect the wheel cylinder boots for evidence of a brake fluid leak. Visually check the boots for cuts, tears or heat cracks. (A slight amount of fluid on the boot may not be a leak, but may be preservative fluid used at assembly.)

FRONT AXLE AND REAR AXLE (Check oil level)

Remove the filler plug and check the oil level. (D09031)

Front axle oil level (A)	Within 8 mm (.31 in.)
Rear axle oil level (A)	Within 14 mm (.55 in.)



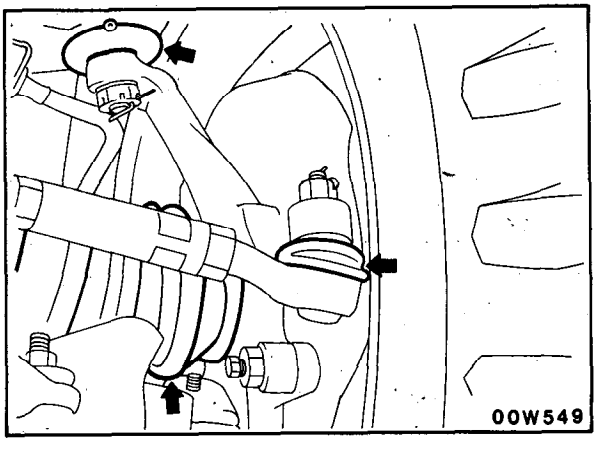
FRONT WHEEL BEARINGS (Inspect for grease leaks)

Inspect for evidence of grease leakage about the hub cap and the back of the hub.
If there is leakage of grease, remove the hub and its oil seal and check for damage.
Clean the grease off the hub and bearing, and repack with the specified new grease.

Recommended multipurpose grease	SAE J310a, NLGI grade #2EP

BALL JOINT SEALS, STEERING LINKAGE SEALS AND DRIVE SHAFT BOOTS (Inspect for leaks and damage)

These components are permanently lubricated at the factory and do not require periodic lubrication.
Damaged seals and boots should be replaced to prevent leakage or contamination of the grease.
Inspect the dust cover and boots for proper sealing, and check for leakage or damage. Replace if defective.



UPPER CONTROL ARM BUSHINGS

Supply grease at the grease nipple until the grease comes out of the dust seal of the upper arm shaft.
Lubricate the upper control arm bushings with Multipurpose Grease, NLGI Grade 2 EP.

MANUAL TRANSMISSION AND TRANSFER CASE (Oil change)

Fluid replacement is required every 48,000 km (30,000 miles) if the vehicle is used in severe usage conditions.

AUTOMATIC TRANSMISSION AND TRANSFER CASE (Fluid change)

Fluid replacement is required every 48,000 km (30,000 miles).