

GROUP 0

GENERAL

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PAINTWORK TERMS

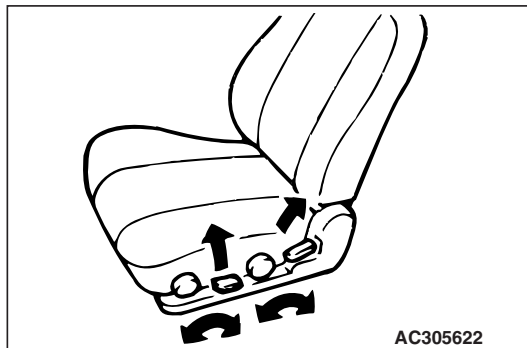
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Term	Definition	Remark
Blister	A raised bubble in the paint (from the base or the undercoat) caused by abnormal moisture. The bubble may contain either water or air.	
Change in tone	The colour tone of the painted surface is not uniform.	Including wrong colour, discoloration and decolouration.
Contact mark	A mark on the painted surface as a result of contact by hands or clothing at the time of paint application.	
Crack	A crack in the painted surface.	Cracks may be either shallow or deep.
Dirt in paintwork	Rough surface resulting from foreign material in the paint or from dust deposited on wet paint during painting or storage.	
Filed or ground traces	Deep scratches in sheet metal surface, resulting from improper use of buffer or sander, are not completely covered, and are visible through paint coating.	
Orange peel	The painted surface has the appearance of an orange peel.	
Peeling	The paint flakes off (partly or over a wide area).	The peeling may be minor, medium, or major.
Pin holes	Tiny holes in the painted surface.	
Runs	A visible trickle of dried paint on the surface.	Either undercoat or top-coat.
Scratches	Scratches on the painted surface.	
Shrink	The painted surface "shrinks", causing wrinkles.	
Smears	Spots of soot or other material deposited on the painted surface.	Including stains and water spots.
Spray mist	The painted surface includes fine particles of other paint.	
Uneven lustre	The lustre of the painted surface is not uniform.	
Uneven metallic dispersion	The metallic dispersion of the painted surface is not uniform.	
Visibly incomplete topcoating	A part of the undercoating visible.	

BEFORE ROAD TEST

17. SEAT ADJUSTERS AND SEATBACK LATCHES

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Check the operation of the various parts of the seats.

1. Mechanical adjusters of the seats
2. Operation of the latch for tilting the seatbacks forward and backward.

18. INHIBITOR SWITCH

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On models with an automatic transmission, be sure the engine starts in both "P" and "N" position, and does not start in other positions.

19. IDLE CONTROL KNOB

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Verify that the diesel engine revolution increases when the idle control knob is pulled out.

20. INSTRUMENT PANEL CONTROLS

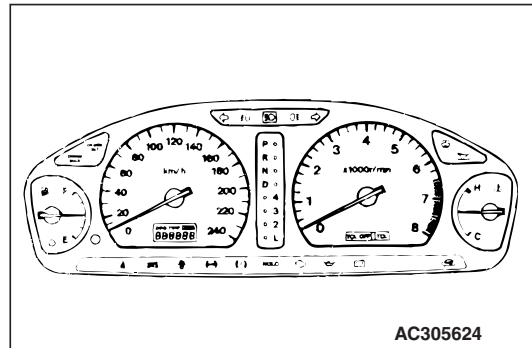
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Check the operation of the following

1. Horn
2. Headlamps
3. Exterior and interior lamps
4. Instrument panel lamps
5. Instrument brightness control

21. METERS, GAUGES, WARNING LAMPS AND INDICATION LAMPS

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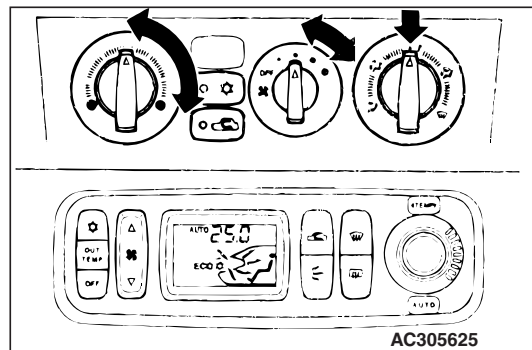


1. Check the meters and gauges are functioning properly.
2. Check each indicator lamp and warning lamp functions properly.

22. AIR CONDITIONER, HEATER AND DEFROSTER SYSTEM

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Check the systems for proper operation.



1. Air conditioner
 - (1) Operate the air conditioner system.
 - (2) Operate the air conditioner light.
 - (3) Operate the control lever in all ranges.
 - (4) Operate the blower motor switch in all ranges.

PERIODIC INSPECTION AND MAINTENANCE SCHEDULE

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For items which indicate both distance and time (in months), the inspection should be made at whichever (distance or time) comes first.

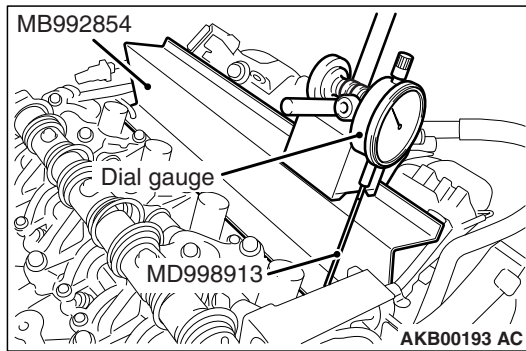
<PETROL - POWERED VEHICLES>

Maintenance item		Maintenance operation	Maintenance interval	
OPERATIONS INSIDE THE ENGINE COMPARTMENT				
A1	Check drive belt for cracks, fraying, wear, and adjust its tension	Inspection	Every 40,000 km or every 2 years	
A3	Replace spark plugs	Iridium-tipped type Replace	Every 100,000 km	
A4	Check valve clearance*1 (except vehicles with auto-lash adjuster)	Inspection	4B1 engine	Every 100,000 km
			4J1 engine	Every 60,000 km
			6B3 ENGINE	Every 40,000 km
A5	Check radiator hoses for damage and proper connection	Inspection	Every 40,000 km or every 2 years	
A6	Check engine coolant level in reservoir	Inspection	Every 40,000 km or every 2 years	
A7	Change engine coolant	Change	First 180,000 km or 9 years, thereafter every 120,000 km or 6 years	
A8	Check air cleaner element for clogging and damage	Inspection	Normal usage	Every 20,000 km or every 12 months
			Severe usage	Every 10,000 km or every 6 months
A9	Replace air cleaner element	Replace	Normal usage	Every 60,000 km or every 3 years
			Severe usage	More frequently
A10	Check fluid level in brake reservoir and clutch reservoir	Inspection	Every 20,000 km or every 12 months	
A11	Change brake fluid	Change	Every 40,000 km or every 2 years	
A12	Check battery condition	Inspection	Every 20,000 km or every 12 months	
A13	Replace fuel filter	Replace	Every 160,000 km or every 10 years	
OPERATIONS UNDER THE VEHICLE				
B1	Check suspension system for damage and looseness	Inspection	Every 20,000 km or every 12 months	
B2	Check suspension arm ball joints for play, and dust covers for damage	Inspection	Every 20,000 km or every 12 months	
B3	Check driveshaft boots for damage	Inspection	Normal usage	Every 40,000 km or every 2 years
			Severe usage	Every 10,000 km

<4J1>

NOTE: The inlet valve side has the inlet continuous variable valve lift system. The oil clearance between the arm and the shaft makes it difficult to measure the valve clearance with the usual feeler gauge. Therefore, use the dial gauge and check the amount of valve lift.

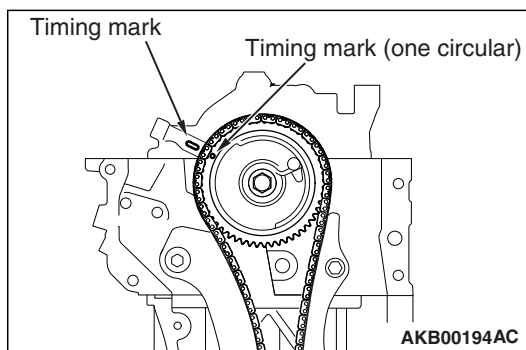
1. Let the engine be in cold state.
2. Turn the ignition switch to the "LOCK" (OFF) position.
3. Remove the rocker cover assembly.



4. Install the special tool magnet base plate (MB992854) to the upper face of the cylinder head at the inlet side.

NOTE: At that time, remove the injector connector and the fixed portion of the harness bracket so that the engine harness cannot interfere with the installation.

5. Install the special tool dial gauge extension (MD998913) to the dial gauge.
6. When installing the dial gauge to the magnet base plate, the dial gauge must have almost the same angle as the inlet valve has.

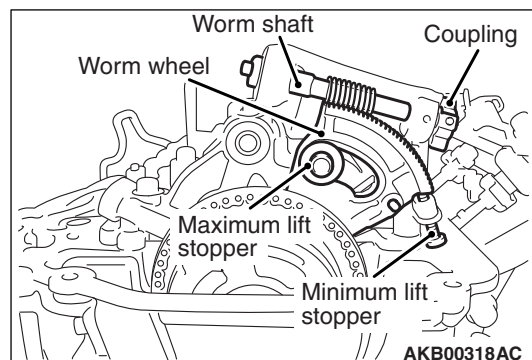


7. Rotate the crankshaft clockwise and align the timing mark of the rocker shaft holder with the one circular timing mark of the V.V.T. sprocket. Therefore, the No. 1 cylinder is set at the top dead centre on its compression stroke.

8. For the No. 1 cylinder inlet valve, check and adjust the valve clearance according to the following procedures.

CAUTION

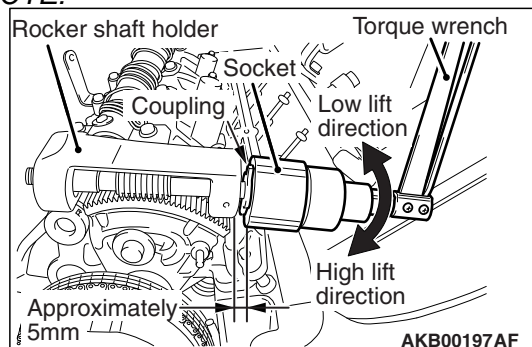
- Never loosen the five Torx bolts at the upper portions of the rocker arm and camshaft assembly.
- Never loosen the minimum lift stopper.
- When rotating the coupling, do not apply the torque more than 3 N·m to prevent the damage.
- Do not forcibly push the worm wheel to the minimum lift stopper and the maximum lift stopper.



9. Slowly rotate the coupling clockwise. When lightly touching the worm wheel to the minimum lift stopper, stop the worm wheel at the position shown in the illustration.

NOTE: When rotating the coupling clockwise, the worm wheel should move in the minimum lift direction. When rotating the coupling anti-clockwise, the worm wheel should move in the maximum lift direction.

NOTE:



When manually rotating the coupling, insert a 12-point socket (24 mm) into the position on the coupling approximately 5 mm away from the rocker shaft holder. Connect the mini torque wrench and slowly rotate them.

The specific gravity of the battery electrolyte changes according to the temperature, so the specific gravity when the electrolyte is at a temperature of 20°C can be calculated using the following formula. Use the converted value to judge whether the electrolyte is okay or not.

$$D_{20} = (t - 20) \times 0.0007 + Dt$$

D_{20} : Specific gravity converted to a value for electrolyte temperature of 20°C

t: Electrolyte temperature at the time of measurement

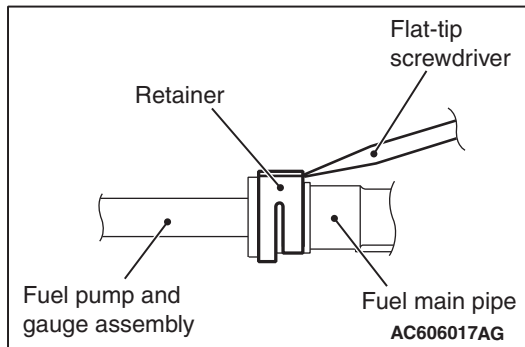
Dt: Actual specific gravity

A13. REPLACE FUEL FILTER

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<Petrol-powered vehicles>

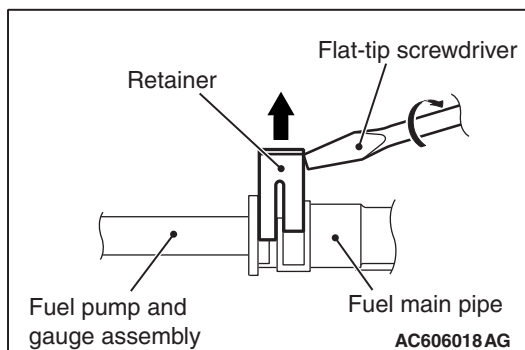
1. Fuel line pressure reduction.



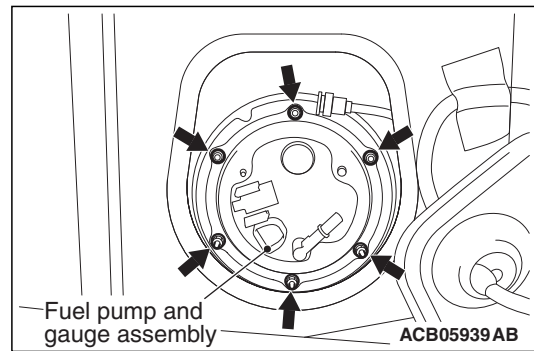
2. Insert a flat-tip screwdriver (6 mm wide and 1 mm thick) into the retainer of the fuel main pipe connector.

⚠ CAUTION

When pushing up the retainer of the fuel main pipe connector, pay attention to avoid damage to the retainer.



3. Turn the flat-tip screwdriver inserted into the retainer by 90 degrees to push up the retainer and unlock the fuel main pipe connector.



4. Remove the mounting nuts of fuel pump and gauge assembly.
5. Remove the fuel tank bracket and connector housing assembly and the fuel pump bracket plate.

⚠ CAUTION

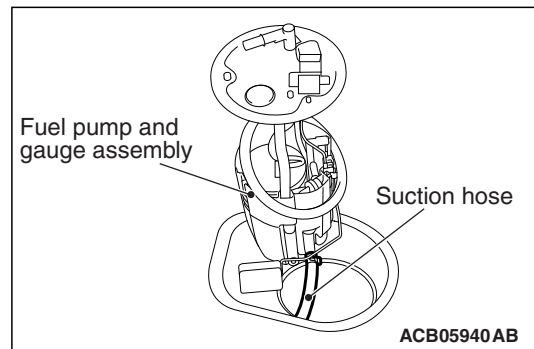
Pay attention not to damage the gauge unit and the float of fuel pump and gauge assembly when withdrawing it from the service hole.

6. Remove the fuel pump and gauge assembly from the fuel tank. <2WD>

NOTE: For disassembly and reassembly of the fuel pump and gauge assembly, refer to "Disassembly and reassembly of fuel pump and gauge assembly on the Workshop Manual."

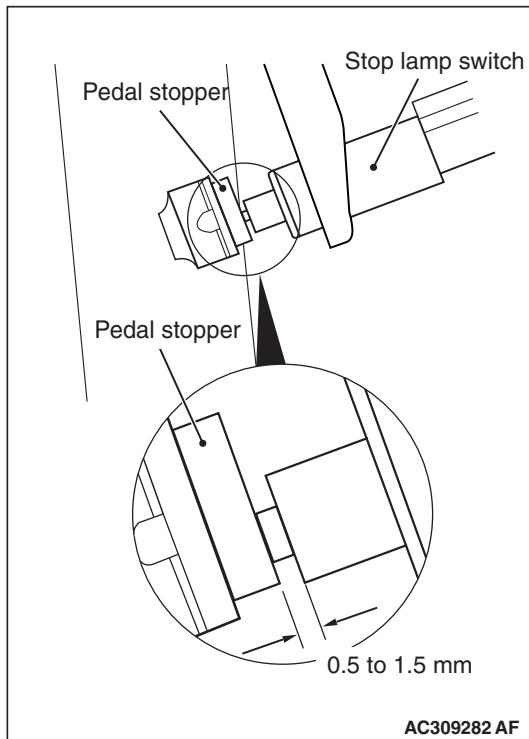
⚠ CAUTION

Pay attention not to damage the gauge unit and the float of fuel pump and gauge assembly when withdrawing it from the service hole.



7. While withdrawing the fuel pump and gauge assembly from the service hole, disconnect the suction hose from the fuel pump and gauge assembly to remove the fuel pump and gauge assembly from the fuel tank. <4WD>

NOTE: For disassembly and reassembly of the fuel pump and gauge assembly, refer to "Disassembly and reassembly of fuel pump and gauge assembly" on the Workshop Manual.



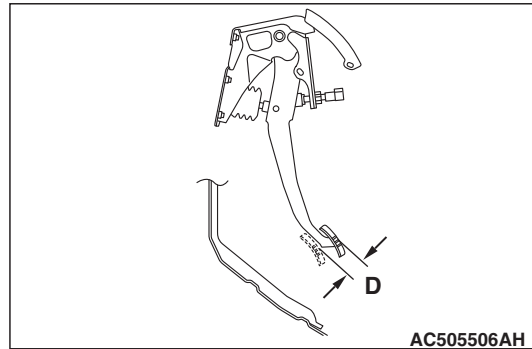
7. After checking the brake pedal height, install the stop lamp switch in the following procedure:
- (1) Screw in the stop lamp switch until its thread contacts the pedal stopper, then turn the switch approximately one eighth of a clockwise turn to fix it. While doing this, pull and hold the brake pedal by hand.
 - (2) Check that the clearance between the stop lamp switch and the pedal stopper is as shown in the figure.

CAUTION

Make sure that the stop lamp is not illuminated when the brake pedal is not depressed.

- (3) Connect the stop lamp switch connector.
8. Recover the floor carpet under the brake pedal.

BRAKE PEDAL FREE PLAY CHECK AND ADJUSTMENT



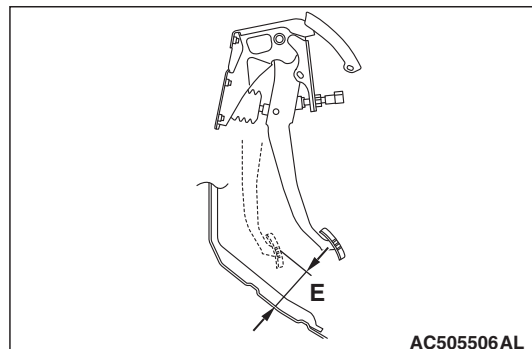
1. With the engine stopped, depress the brake pedal 2 or 3 times to relieve the vacuum in the brake booster. Then, press the brake pedal with your finger and check if the pedal stroke until the pedal becomes heavy (play) is within the standard value.

Standard value (D): 3 – 8 mm

2. When the brake pedal free play is not within the standard value, check the brake pedal-to-clevis pin looseness, clevis pin-to-booster operating rod looseness, brake pedal height, and stop lamp switch position, and adjust or replace as necessary.

BRAKE PEDAL-TO-FLOOR PANEL CLEARANCE CHECK AND ADJUSTMENT

1. Turn up the floor carpet under the brake pedal.



2. Start the engine and depress the brake pedal with approximately 500 N, and measure clearance between the brake pedal and the floor panel.

Standard value (E): 65 mm or more

3. When the clearance is not within the standard value, check for the air in the brake line and thickness of the disc brake pad, and correct or replace as necessary.
4. Recover the floor carpet under the brake pedal.

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