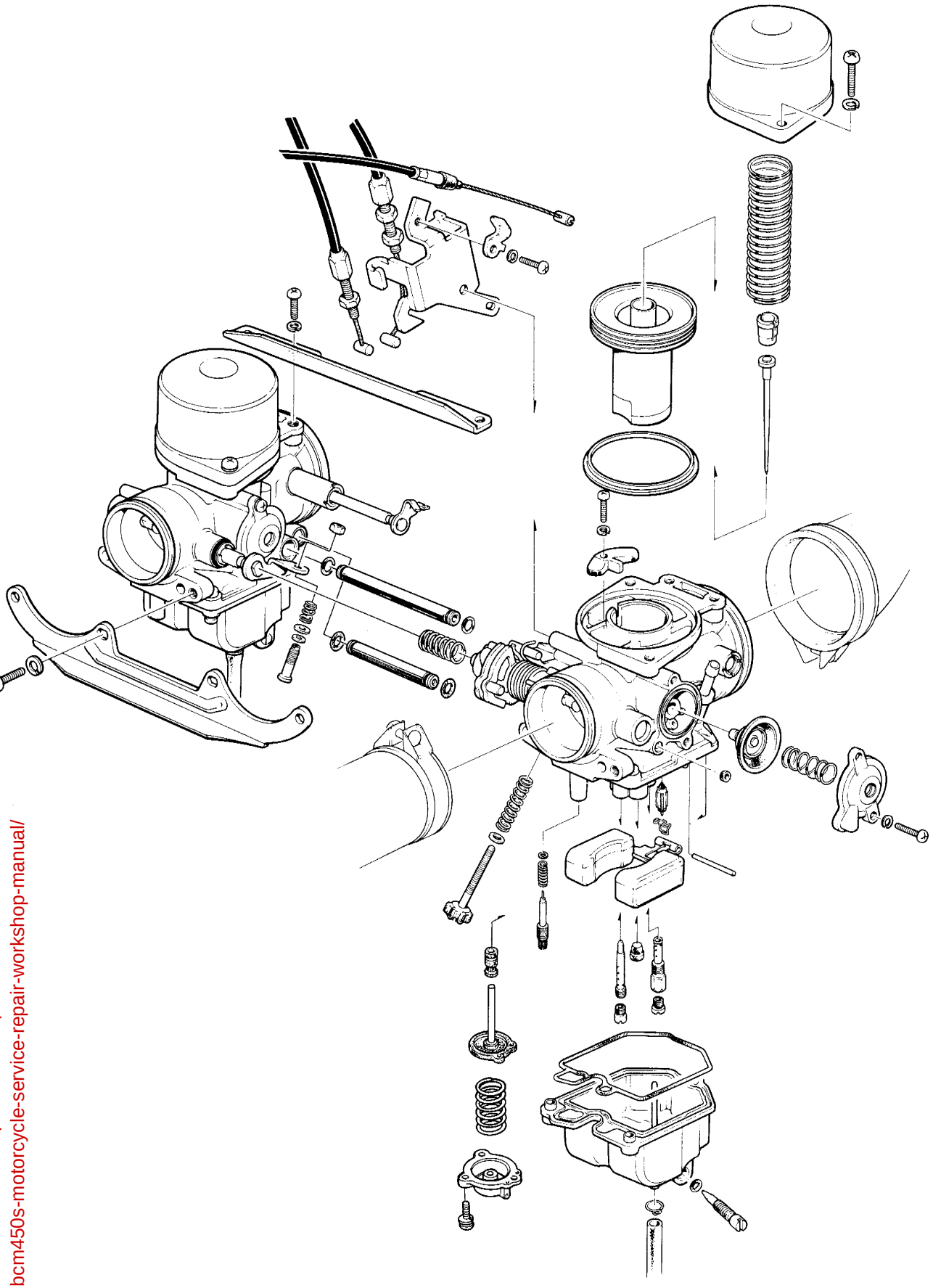


4

SERVICE INFORMATION

GENERAL

- Use caution when working with gasoline. Always work in a well-ventilated area and away from sparks or open flames.
- When disassembling fuel system parts, note the locations of the O-rings. Replace them with new ones on reassembly.
- The float bowls have drain plugs that can be loosened to drain residual gasoline.

SPECIFICATIONS

	CM450C	CM450A	CM450E	CB450T
Venturi dia.	30 mm (1.2 in)	28 mm (1.1 in)	30 mm (1.2 in)	←
Identification No.	VB22G	VB24E	VB22J	VB22L
Float level	15.5 mm (0.61 in)	←	←	←
Main jet	Pri.: 72 2nd.: 115	Pri.: 75 2nd.: 108	Pri.: 72 2nd.: 115	Pri.: 70 2nd.: 108
Idle speed	1,200 ± 100 rpm	1,250 ± 100 rpm	1,200 ± 100 rpm	←
Throttle grip free play	2–6 mm (1/8–1/4 in)	←	←	←
Fast idle	2,500 ± 500 rpm	2,000 ± 500 rpm	2,500 ± 500 rpm	←
Pilot screw initial opening	See page 4-12			

TOOLS

COMMON

Float gauge 07401–0010000

TROUBLESHOOTING

Engine cranks but won't start
1. No fuel in tank
2. No fuel to carburetor
3. Engine flooded with fuel
4. No spark at plug (ignition malfunction)
5. Air cleaner clogged
6. Intake air leak
7. Improper choke operation
8. Improper throttle operation

Hard starting or stalling after starting
1. Improper choke operation
2. Ignition malfunction
3. Fast idle speed incorrect
4. Carburetor malfunction
5. Fuel contaminated
6. Intake air leak
7. Idle speed incorrect

Rough idle
1. Ignition malfunction
2. Idel speed incorrect
3. Incorrect carburetor synchronization
4. Carburetor malfunction
5. Fuel contaminated

Misfiring during acceleration
1. Ignition malfunction
2. Faulty air cut-off valve

Backfiring
1. Ignition malfunction
2. Carburetor malfunction
3. Faulty air cut-off alve

Poor performance (driveability) and poor fuel economy
1. Fuel system clogged
2. Ignition malfunction
3. Dirty air cleaner

Lean mixture
1. Clogged fuel jets
2. Vacuum piston sticking
3. Faulty float valve
4. Float level low
5. Fuel cap vent blocked
6. Fuel strainer screen clogged
7. Restricted fuel line
8. Air vent tube clogged
9. Intake air leak

Rich mixture
1. Clogged air jets
2. Fauty float valve
3. Float valve too high
4. Choke stuck closed
5. Air cut-off valve sticking closed
6. Dirty air cleaner

CARBURETOR REMOVAL

Remove the left and right frame side covers.

Remove the seat.

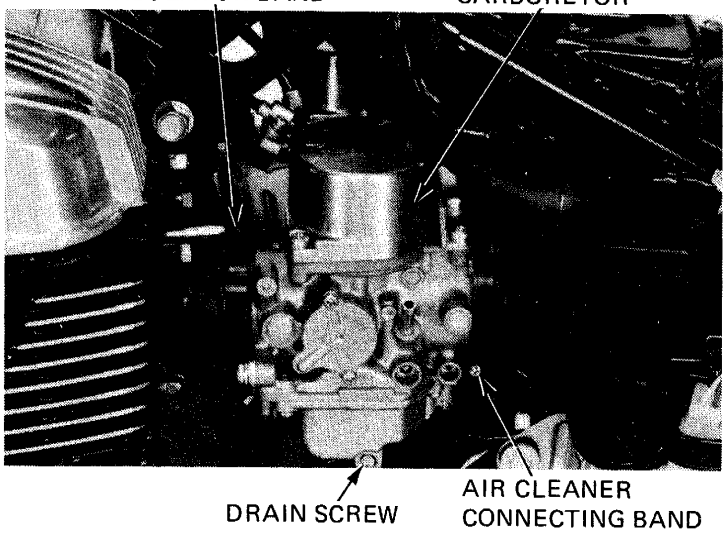
Turn the fuel valve "OFF" and disconnect the fuel line.

Remove the fuel tank.

Loosen the air cleaner connecting bands.

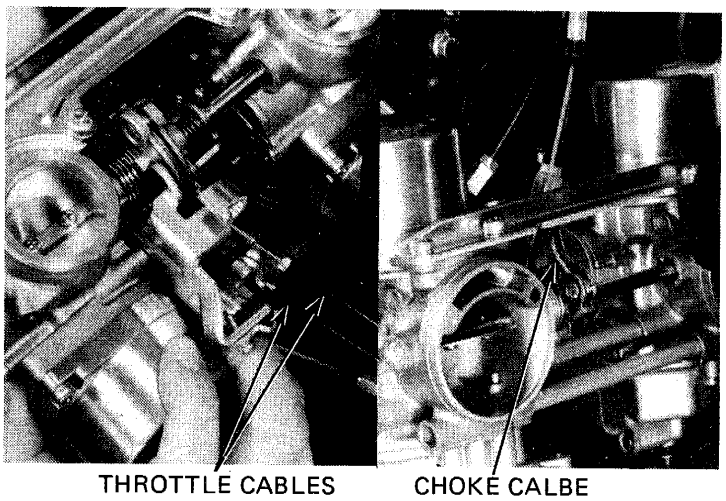
Loosen the carburetor insulator bands.

Drain residual fuel into a suitable container by loosening each drain screw.



Remove the carburator assembly.

Disconnect the throttle and choke cables.



VACUUM CYLINDER

Remove the vacuum cylinders from the carburetor bodies.

Carefully lift the vacuum piston out with the needle and compression spring.

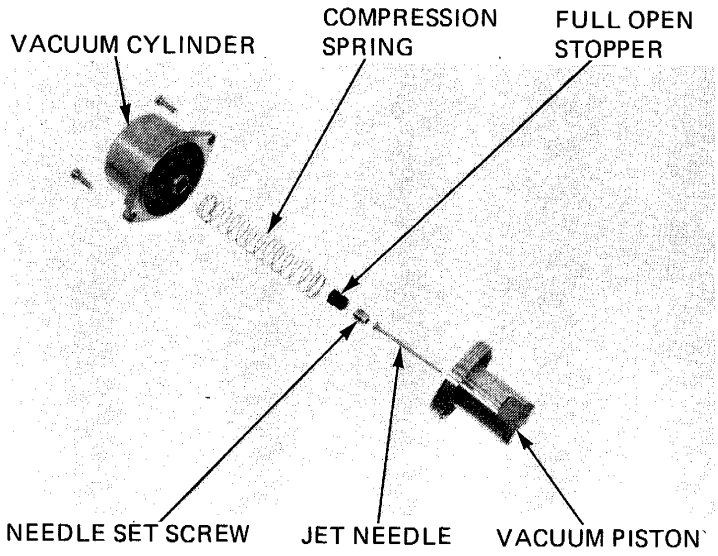
Inspect the vacuum piston and cylinder for wear, nicks, scratches or other damage. Make sure that the piston and jet needle move up and down freely in the cylinder.

Remove the full open stopper

Remove the needle set screw.

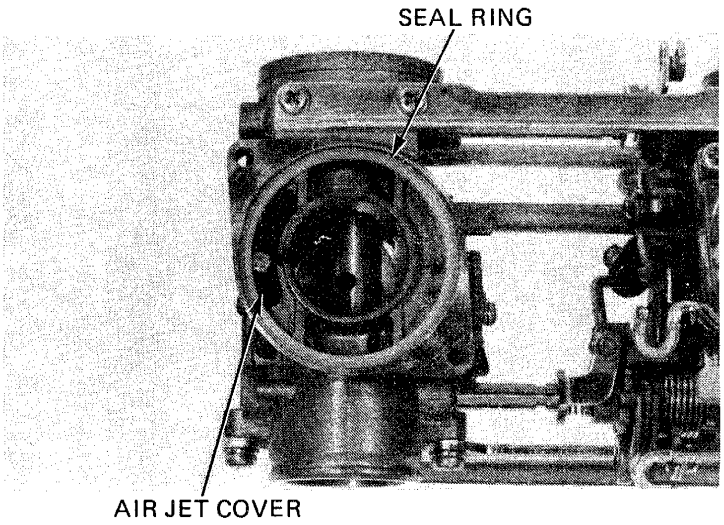
Separate the jet needle from the piston.

Inspect the needle and seat for deposits, bending, grooves, or other damage.

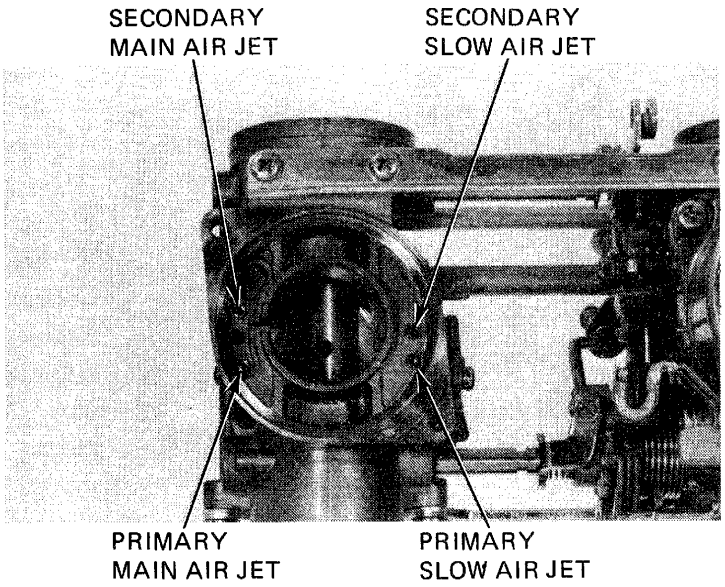


Carefully lift the seal ring off the carburetor body.

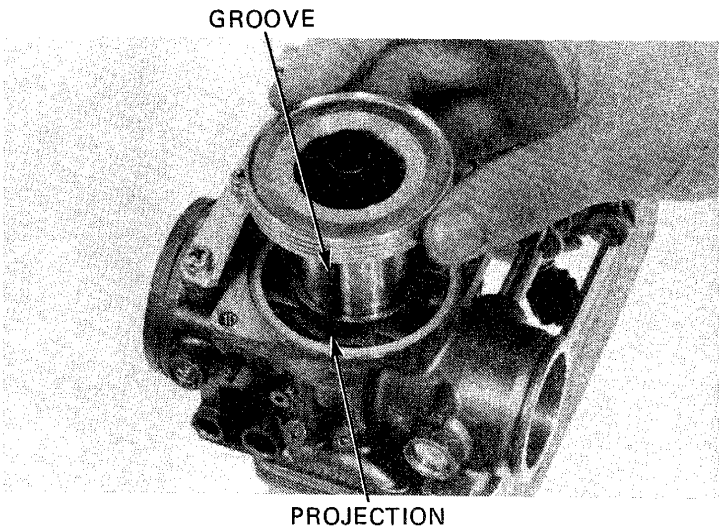
Remove the air jet cover.



Blow open the primary main iar jet, secondary main air jet and slow air jet with compressed air.



Assemble the vacuum cylinder; Align the groove in the vacuum piston with the projection on the air jet cover to install the piston.



PILOT SCREW

REMOVAL

NOTE

The pilot screws are factory pre-set and should not be removed unless the carburetor is overhauled.

Remove the float chamber (USA only).

Turn the pilot screw in and carefully count the number of turns before it lightly seats.

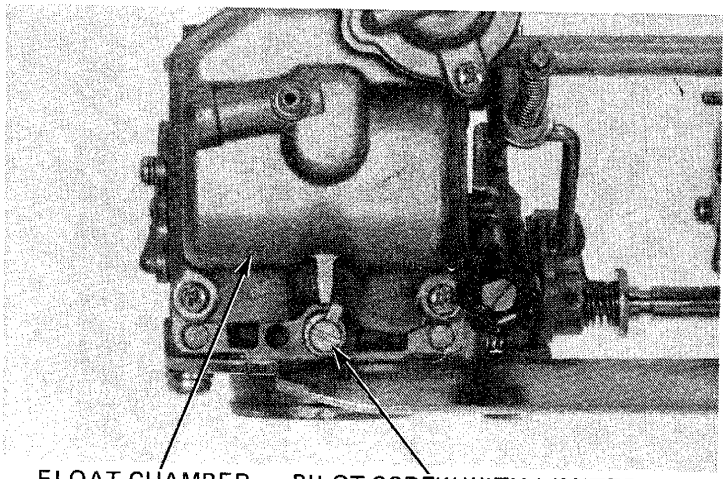
Make a note of this to use as a reference when reinstalling the pilot screw.

CAUTION:

Damage to the pilot screw seat will occur if the pilot screw is tightened against the seat.

Remove the pilot screw.

Inspect the pilot screw and replace if worn or damaged.



INSTALLATION

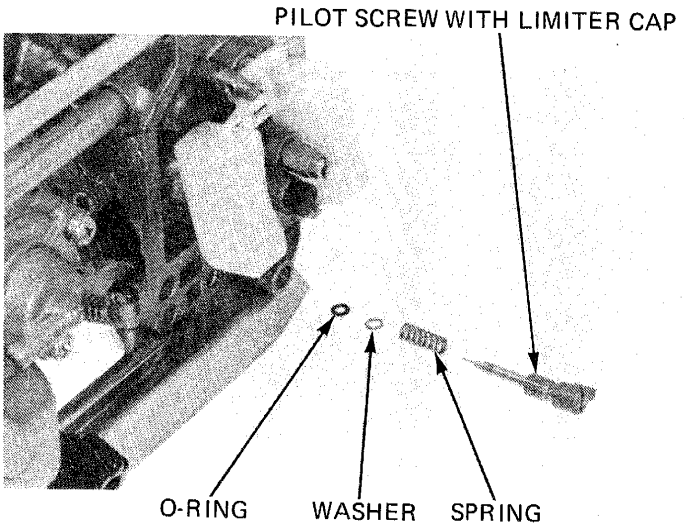
Install the pilot screw and return it to its original position as noted during removal.

Install the float chamber (USA only).

Perform pilot screw adjustment if a new pilot screw is installed (page 4-12).

NOTE

Do not install limiter caps on new pilot screws until after adjustment has been made.



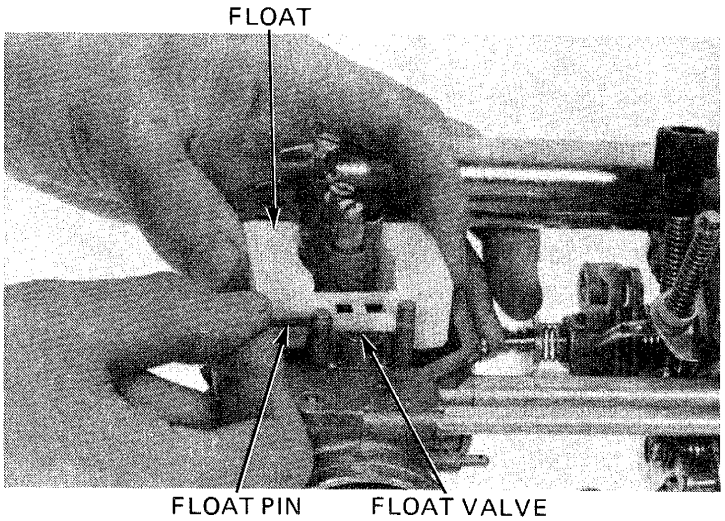
FLOAT AND JETS

Remove the float chamber.

Press out and remove the float arm pin.

Remove the float and float valve.

Check the float valve operation.



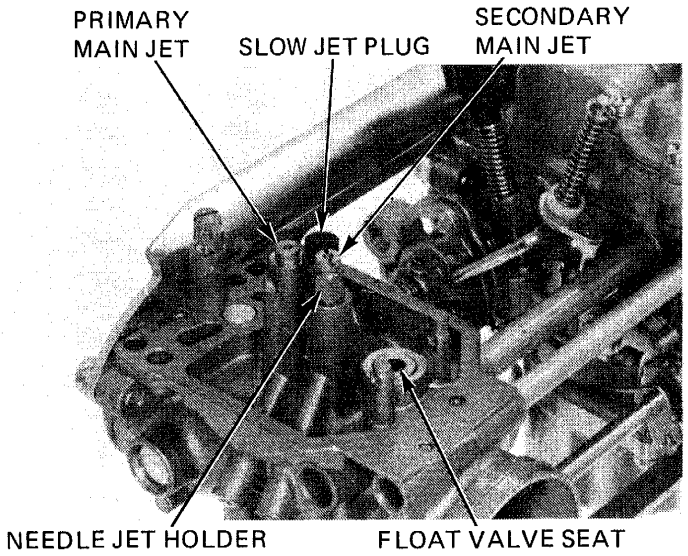
Inspect the float valve and seat for grooves, nicks or deposits.

Remove the secondary main jet.

Remove the primary main jet.

Remove the slow jet plug.

Remove the needle jet holder.



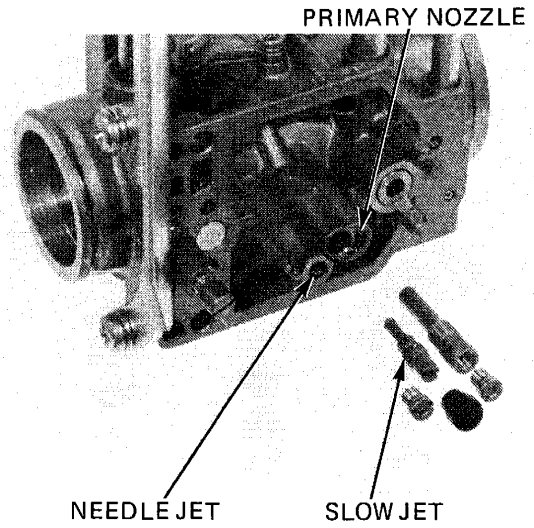
Remove the slow jet.

Blow all jets and body passages with compressed air.

Reassemble by reversing the disassembly steps.

NOTE

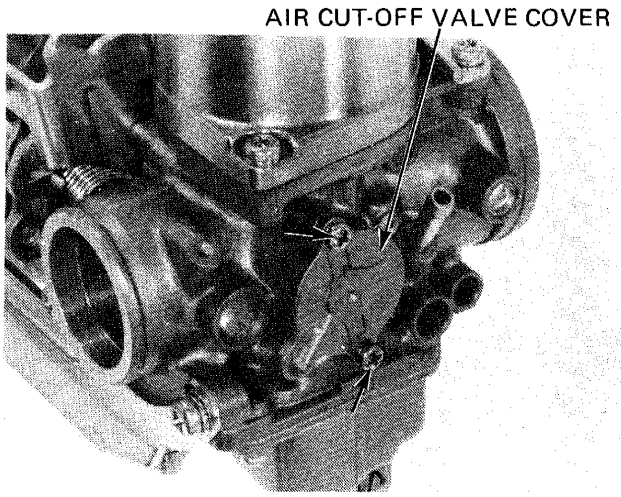
Install the float valve with the float.



AIR CUT-OFF VALVE

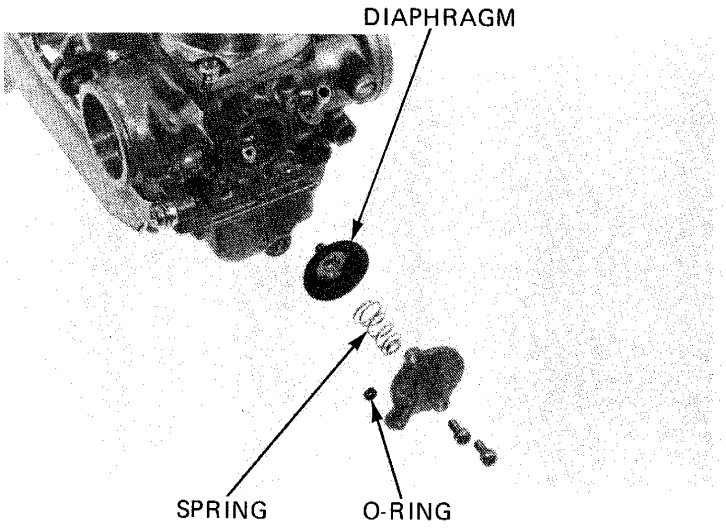
Remove the air cut-off valve cover and spring.

Remove the diaphragm and O-ring.



Inspect the diaphragm and valve for cracks and brittleness.

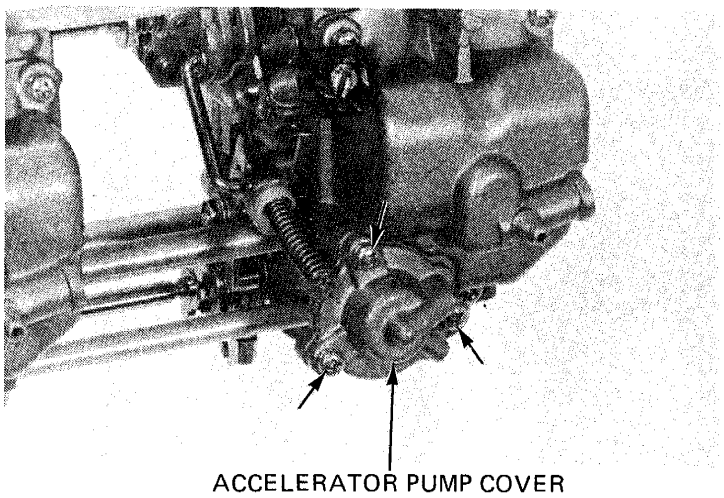
Assemble the air cut-off valve.



ACCELERATOR PUMP

Remove the accelerator pump cover and spring.

Remove the diaphragm.

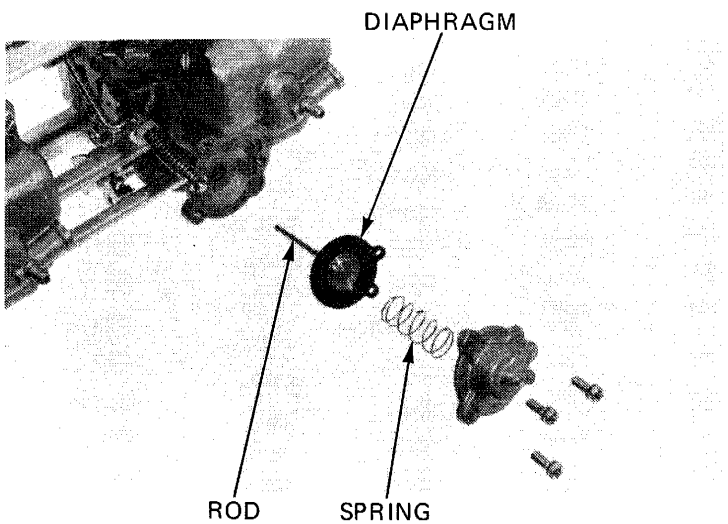


Inspect the diaphragm for cracks and brittleness.

NOTE

Be sure the rod is not bent.

Assemble the accelerator pump.



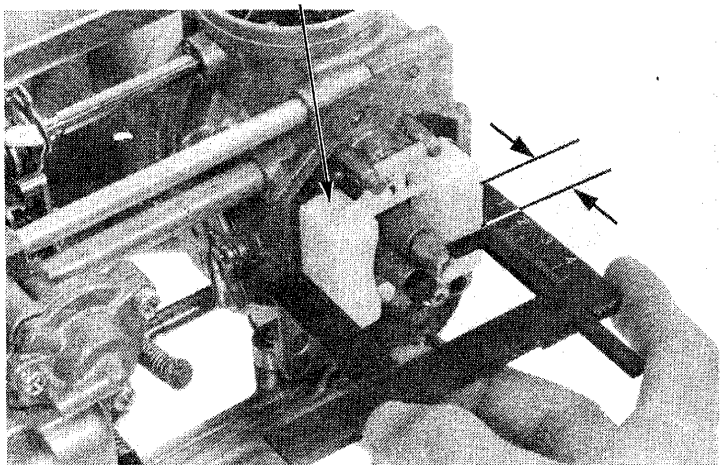
FLOAT LEVEL

Remove the float chamber.

Measure the float level with the float tip just contacting the float valve.

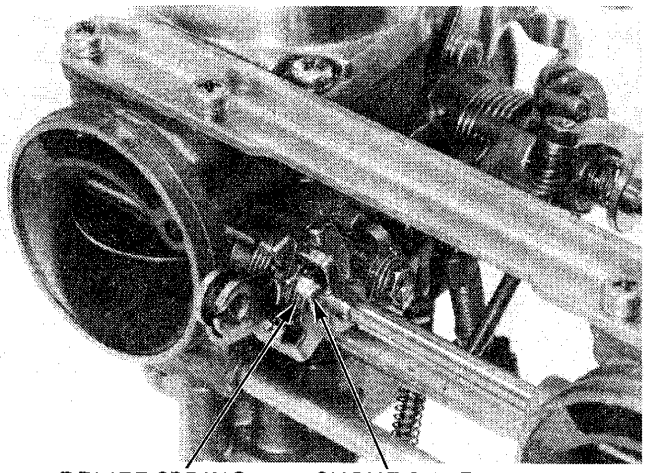
FLOAT LEVEL: 15.5 mm (0.61 in)

Replace the float, if the float level is not within the specification.



CARBURETOR SEPARATION

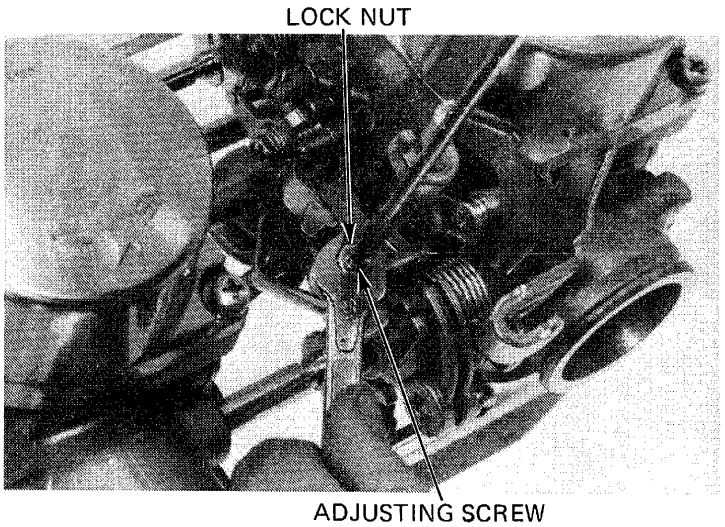
Unhook the choke relief spring from the choke shaft arm of the right carburetor.



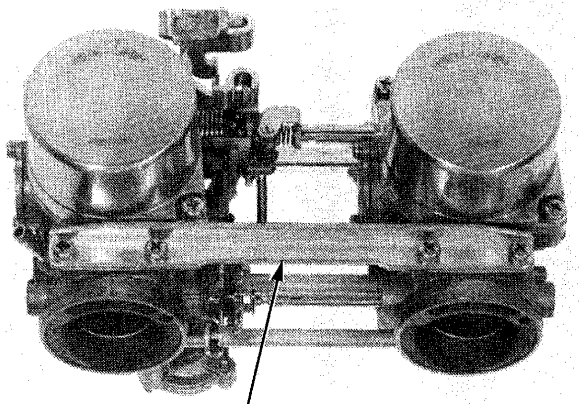
Loosen the synchronization adjusting screw lock nut and adjusting screw until there is no tension.

NOTE

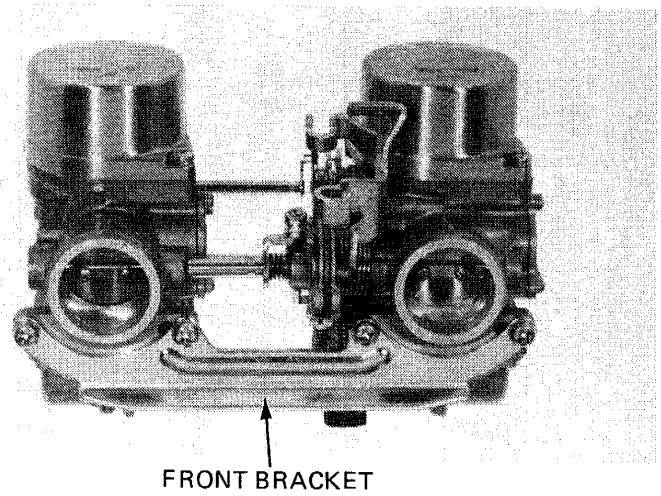
Turn the synchronization screw in until it seats and note the number of turns for reference during assembly.



Remove the rear bracket.



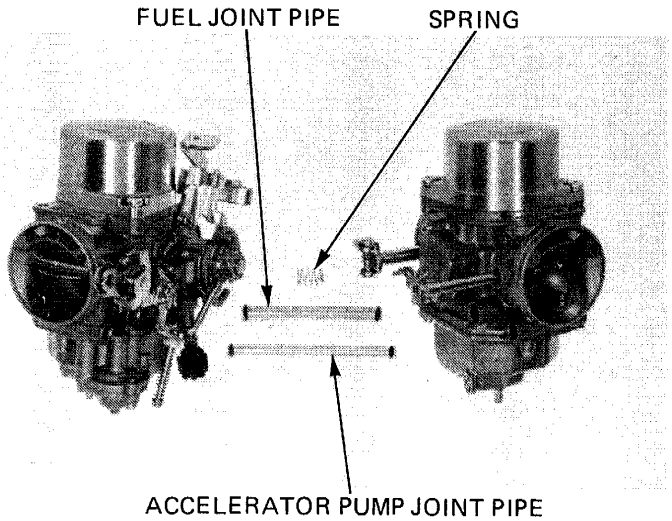
Remove the front bracket.



Carefully separate the carburetors.

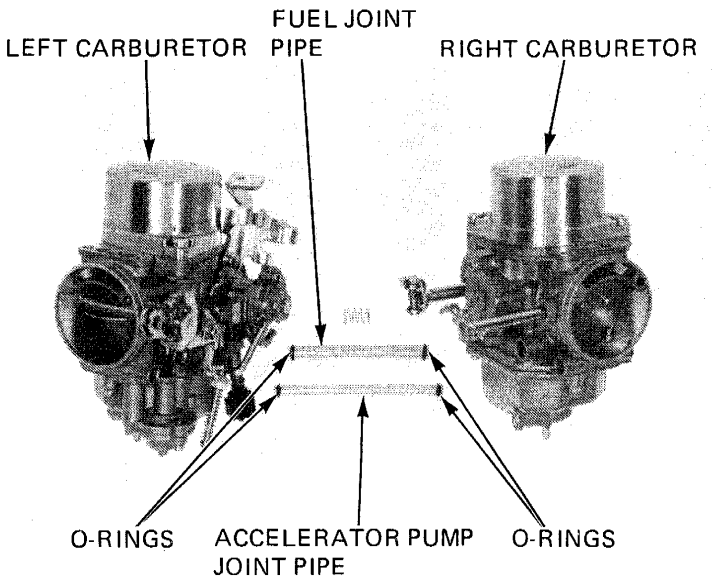
CAUTION:

Separate the carburetors horizontally to prevent damage to the joint pipes and choke linkage.



CARBURETOR ASSEMBLY

Apply a thin coat of oil to new O-rings and put them on each end of the accelerator pump and fuel joint pipes.

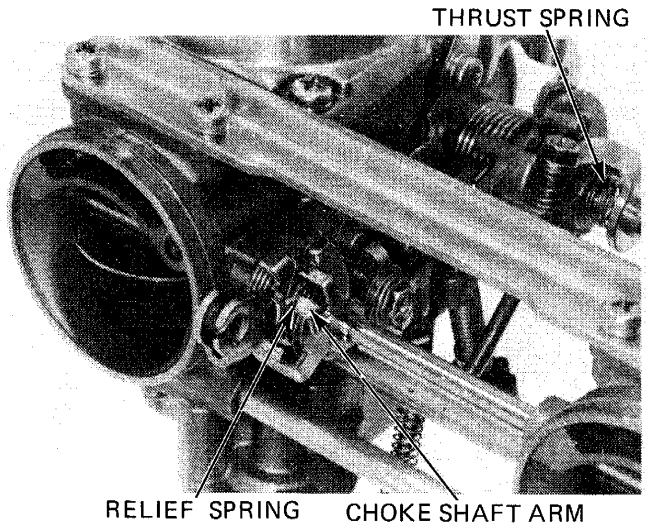


Assemble the right and left carburetors noting the thrust spring position.

Install the front and rear brackets.

Turn the synchronization adjusting screw to its original position as noted during disassembly.

Hook the choke relief spring to the choke shaft arm of the right carburetor.



FAST IDLE ADJUSTMENT

FAST IDLE:

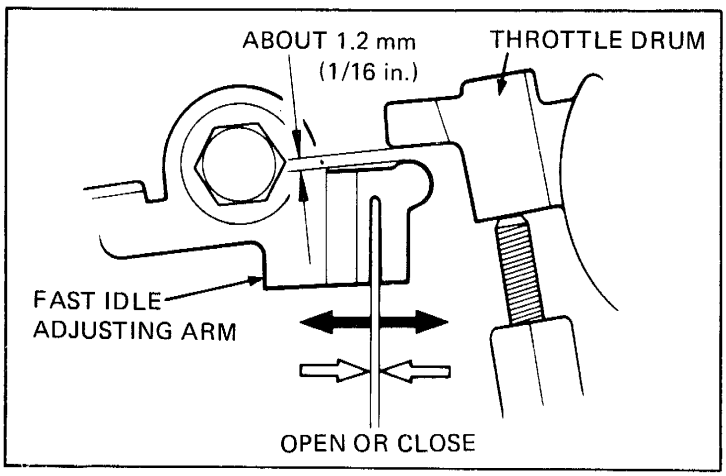
CB450T, CM450C/E:	**2,500 ± 500 rpm**
CM450A:	**2,000 ± 500 rpm**

Close the throttle valve and open the choke valve.

Measure the clearance between the throttle drum and fast idle adjusting arm.

CLEARANCE: 1.2 mm (1/16 in)

Adjust by opening and closing the fork end of the fast idle adjusting arm.



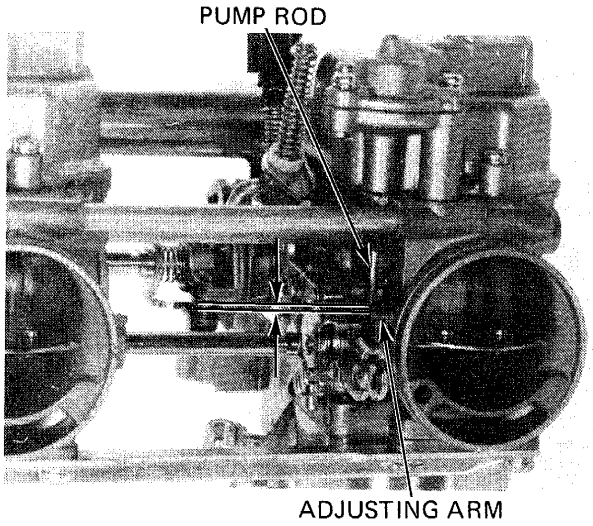
ACCELERATOR PUMP ADJUSTMENT

Loosen the throttle stop screw until the throttle valve is closed.

Measure the clearance between the accelerator pump rod and adjusting arm with the throttle valve closed.

CLEARANCE: 0.01–0.04 mm (0.0004–0.002 in)

Adjust by bending the adjusting arm.

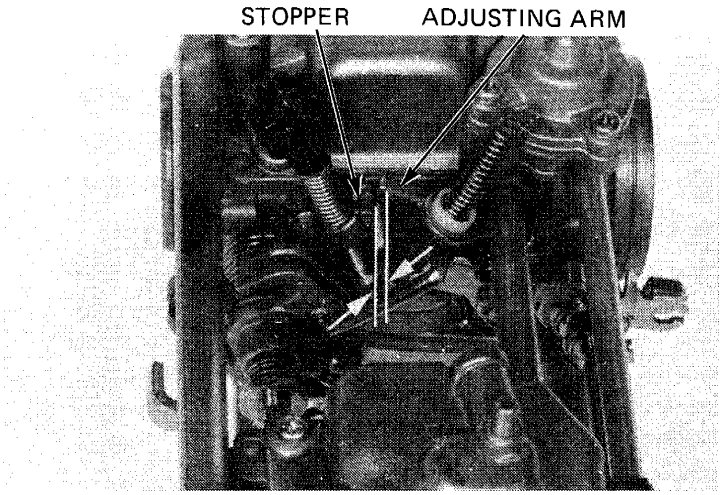


Measure the clearance between the adjusting arm and stopper on the carburetor body.

CLEARANCE:

CB450T, CM450C/E:	**7.0 mm (1/4 in)**
CM450A:	**8.9 mm (3/8 in)**

Adjust by bending the adjusting arm.



CARBURETOR INSTALLATION

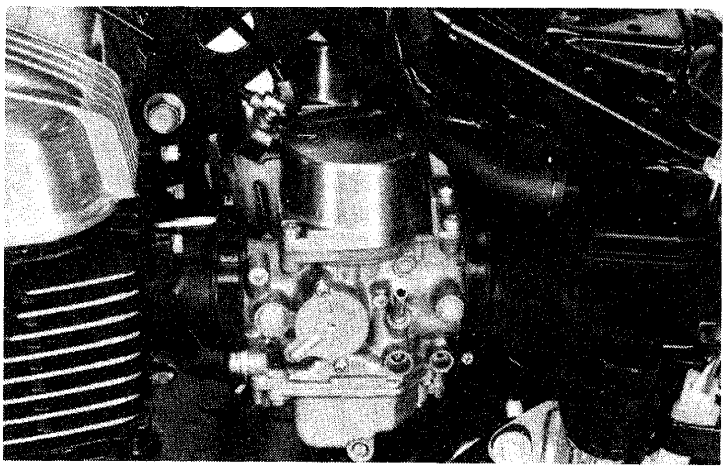
The installation sequence is essentially the reverse of removal.

NOTE

Route the throttle and choke cables properly (page 1-11 to 1-22).

Perform the following inspections and adjustments.

- Throttle operation (page 3-8)
- Carburetor choke (page 3-8)
- Carburetor idle speed (page 3-16)



PILOT SCREW ADJUSTMENT

IDLE DROP PROCEDURE

NOTE

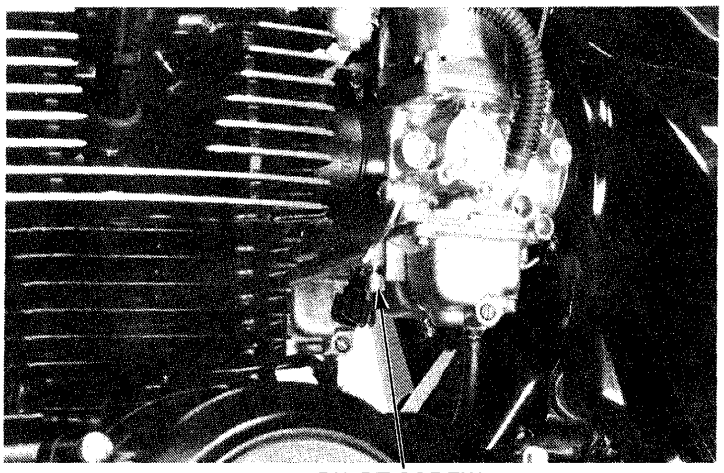
- The pilot screws are factory pre-set and no adjustment is necessary unless the pilot screw is replaced (See removal).
- Use a tachometer with graduation of 100 rpm or smaller that will accurately indicate a 100 rpm change.

1. Turn each pilot screw clockwise until it seats lightly and back it out to the specification given. This is an initial setting prior to the final pilot screw adjustment.
   INITIAL OPENING:
   CB450T, CM450C/E: 2-1/4 turns out
   CM450A: 2-3/4 turns out

CAUTION:

Damage to the pilot screw seat will occur if the pilot screw is tightened against the seat.

2. Warm up the engine to operating temperature. Stop and go driving for 10 minutes is sufficient.
3. Attach a tachometer.
4. Adjust the idle speed with the throttle stop screw.
   IDLE SPEED:
   CB450T, CM450C/E: 1,200± 100 rpm
   CM450A: 1,250 ± 100 rpm
5. Turn each pilot screw in or out to obtain the highest engine speed.
6. Readjust the idle speed.
7. Turn one of the pilot screws in gradually until the engine speed is lowered by 100 rpm.
8. Turn the pilot screw 3/8 turn out from the above position.
9. Readjust the idle speed with the throttle stop screw.
10. Repeat steps 7 through 9 for the other carburetor.



PILOT SCREW

LIMITER CAP INSTALLATION

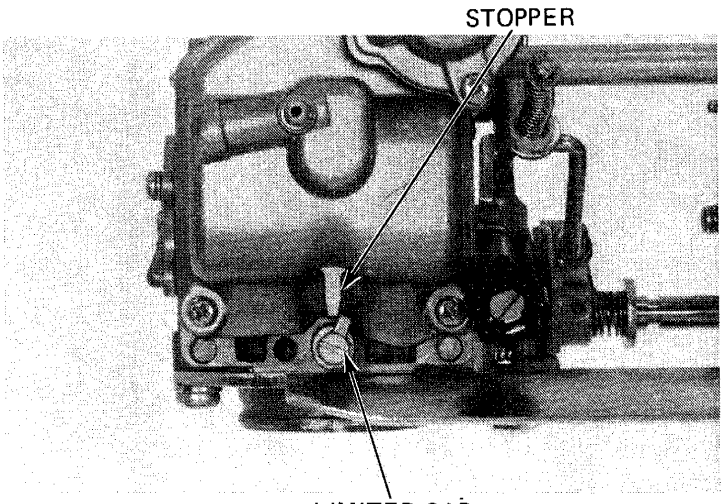
If the pilot screw is replaced, a new limiter cap must be installed after pilot screw adjustment is completed.

After adjustment, cement the limiter cap over the pilot screw, using LOCTITE® 601 or equivalent.

The limiter cap should be placed against its stop, preventing further adjustment that would enrich the fuel mixture (limiter cap position permits clockwise rotation and prevents counterclockwise rotation).

NOTE

Do not turn the pilot screw when installing the limiter cap.



HIGH ALTITUDE ADJUSTMENT

(U.S.A. only)

When the vehicle is to be operated continuously above 6,500 feet (2,000 meters) the carburetors must be readjusted as described below, to improve driveability and decrease exhaust emission.

Remove the carburetors.

Adjust the clearance between the accelerator pump adjusting arm and stopper to 4 mm (1/8 in).

Install the carburetors.

Warm up the engine to operating temperature. Stop and go driving for 10 minutes is sufficient.

Turn each pilot screw clockwise 1/2 turn.

Adjust the idle speed with the throttle stop screw.

CB450T, CM450E/C: **1,200 ± 100 rpm**
CM450A: **1,250 ± 100 rpm**

NOTE

These adjustments must be made at high altitude to ensure proper high altitude operation.

Attach Vehicle Emission Control Information Update label as shown.

NOTE

- Instructions for obtaining Vehicle Emission Control Update label are given in service News letter No. 132.
- Do not attach the label to any part that can be easily removed from the vehicle.

CAUTION:

Operation at an altitude lower than 5,000 feet (1,500 meters) with the carburetors adjusted for high altitudes may cause the engine to idle roughly and stall.

When the vehicle is to be operated continuously below 5,000 feet (1,500 meters);

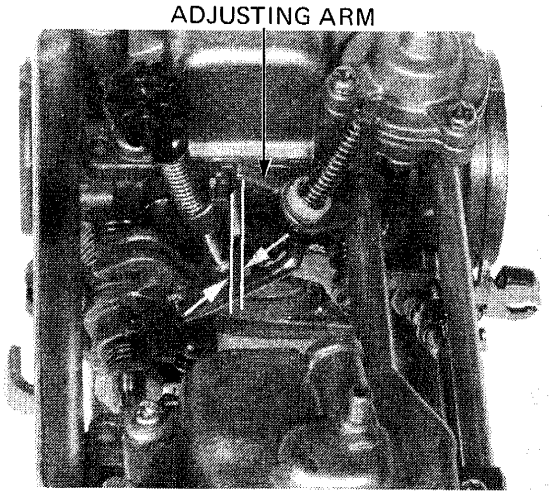
Adjust the clearance between the accelerator pump adjusting arm and stopper.

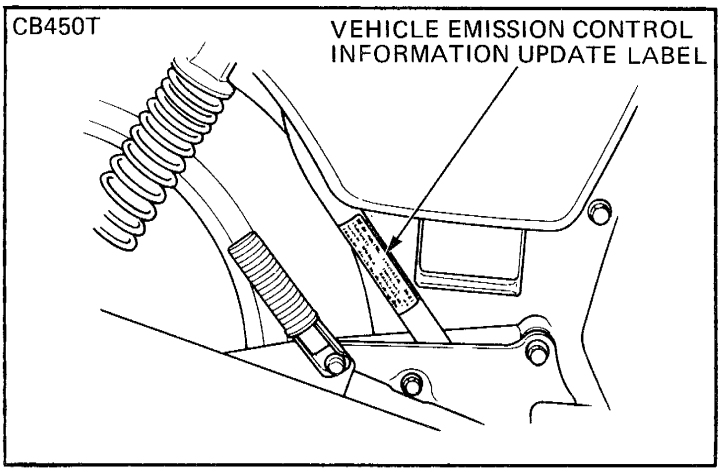
CB450T, CM450E/C: **7mm (1/4 in)**
CM450A: **8.9mm (3/8 in)**

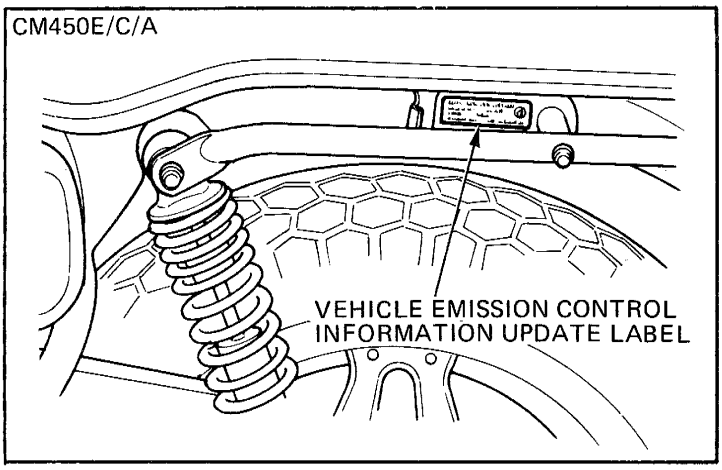
Turn each pilot screw counterclockwise to its original position against its stop and adjust the idle speed with the throttle stop screw.

CB450T, CM450E/C: **1,200 ± 100 rpm**
CM450A: **1,250 ± 100 rpm**

Be sure to do these adjustments at low altitude.







FUEL TANK

WARNING

Do not allow flames or sparks near gasoline. Wipe up spilled gasoline at once.

Check the vent hole of the filler cap for blockage.

Check that fuel is flowing out of the fuel valve freely.

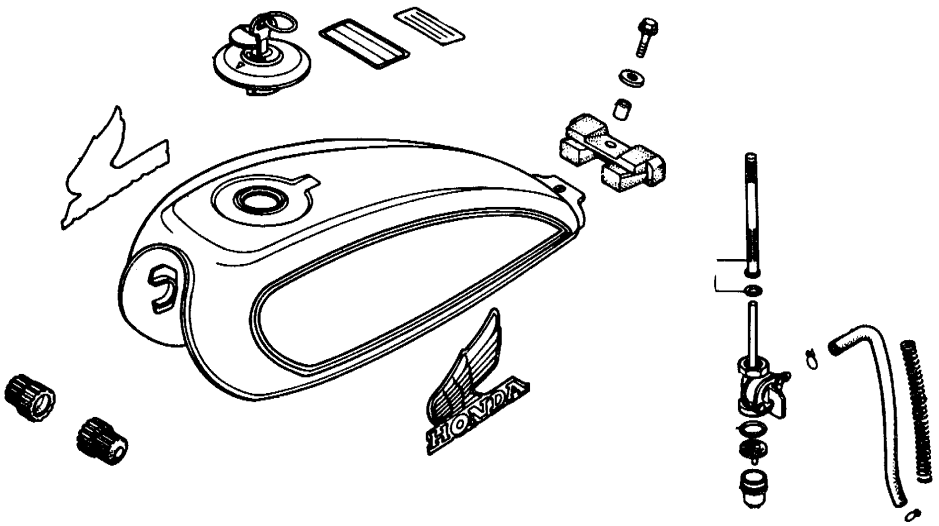
If fuel flow is restricted, clean the fuel strainer.

NOTE

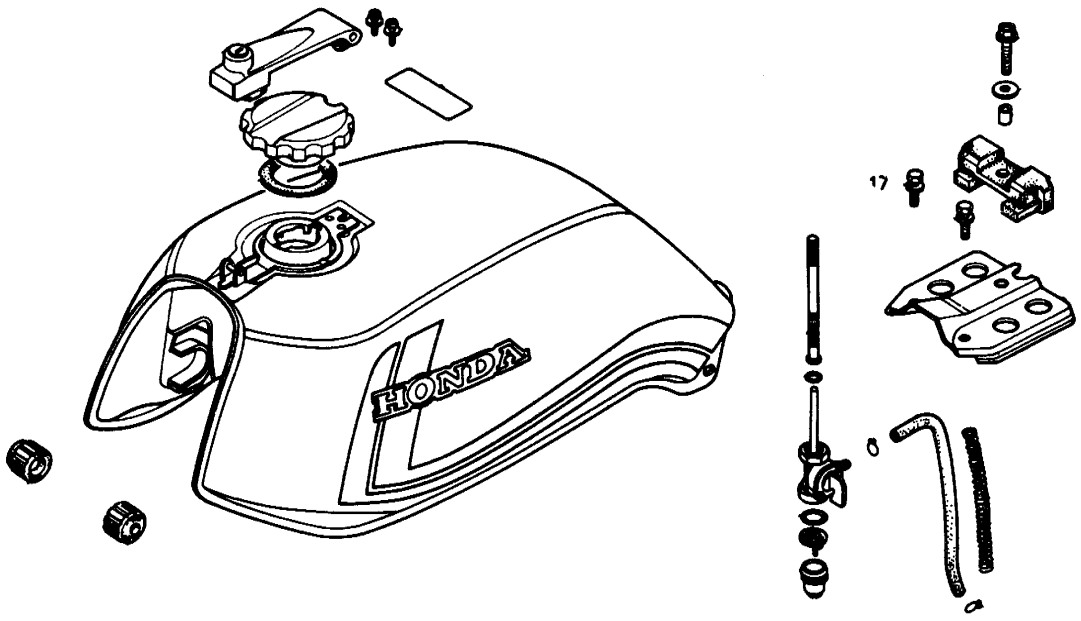
Do not overtighten the fuel valve lock nut.

Make sure there are no fuel leaks.

CM450C/E/A



CB450T



AIR CLEANER

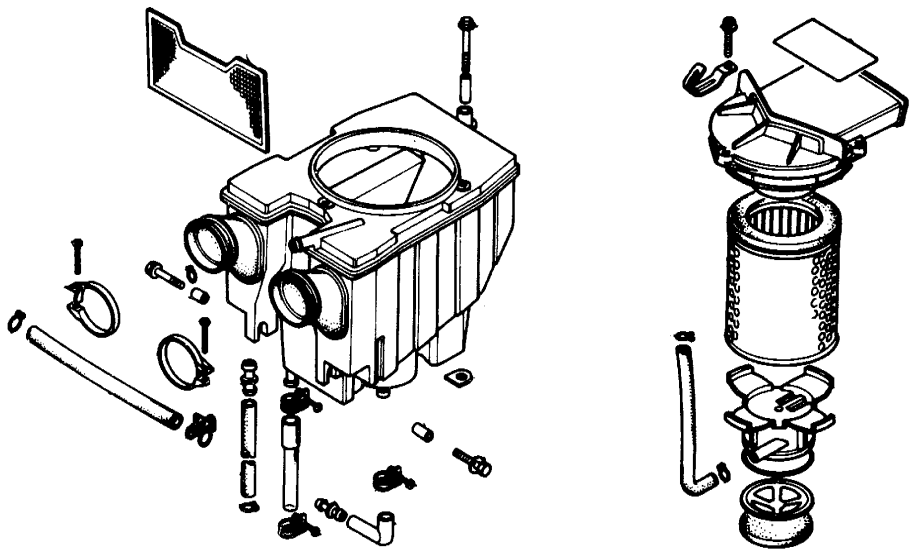
CASE/CHAMBER

Check the air cleaner case for holes, mismatched and distorted sealing surfaces, and other damage or deterioration.

CRANKCASE VENTILATION SYSTEM

Check that the breather tube is not restricted.

CM450C/E/A



CB450T