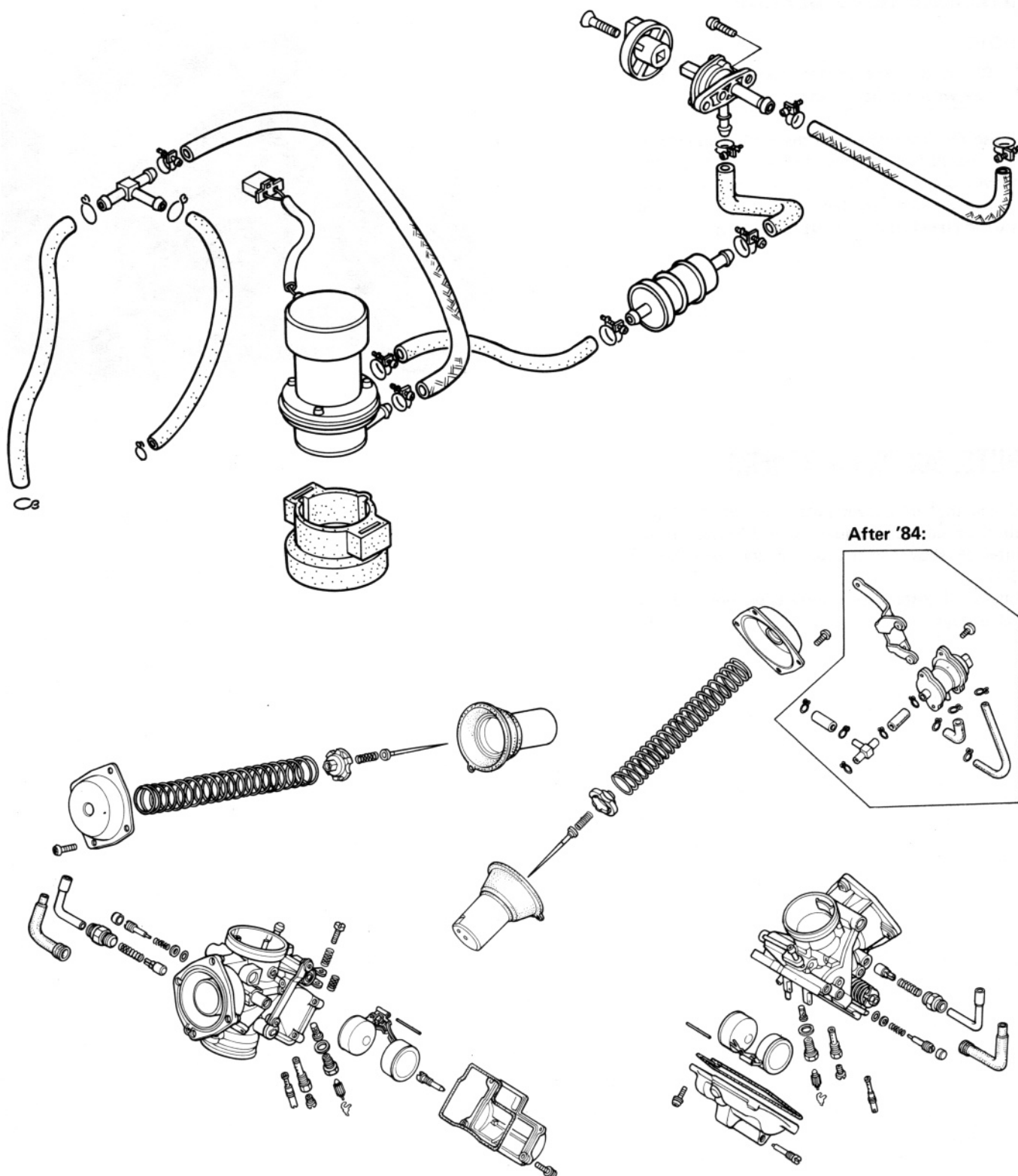


FUEL SYSTEM



4. FUEL SYSTEM

4

SERVICE INFORMATION	4-1	PILOT SCREW ADJUSTMENT	4-12
TROUBLESHOOTING	4-2	AIR CUT VALVE AFTER '84	4-13
CARBURETOR REMOVAL	4-3	FUEL TANK	4-13
VACUUM CHAMBER	4-4	AUXILIARY FUEL TANK	4-14
FLOAT CHAMBER	4-6	AIR CLEANER CASE	4-14
PILOT SCREW	4-8	FUEL PUMP	4-15
CARBURETOR SEPARATION	4-9	HIGH ALTITUDE ADJUSTMENT (USA only)	4-15
CARBURETOR ASSEMBLY	4-10	PURGE CONTROL VALVE INSPECTION (California model)	4-17
CARBURETOR INSTALLATION	4-11		

SERVICE INFORMATION

GENERAL

WARNING

Gasoline is extremely flammable and is explosive under certain conditions. Work in a well ventilated area. Do not smoke or allow flames or sparks in the work area.

- The engine uses down draft carburetors.
- When disassembling fuel system parts, note the locations of the O-rings. Replace them with new ones on reassembly.
- The float bowls have drain screws that can be loosened to drain residual gasoline.
- Fuel pump inspection is in section 21.

TOOLS

Special

Pressure pump	ST-AH-255-MC7 (U.S.A. only)
Vacuum pump	ST-AH-260-MC7 (U.S.A. only)
Valve guide driver, 7 mm	07942-8230000 (U.S.A. only)

Common

Float gauge	07401-0010000
-------------	---------------

SPECIFICATIONS

[] California model

	'83:	'84:	After '84:
Venturi dia.	Primary 14.2 mm (0.56 in) Secondary 34.2 mm (1.35 in)	← ←	14.8 mm (0.58 in) ←
Identification No.	VD7AA	VD7CA [VD7BA]	VD7CB [VD7BB]
Float level	7.5 mm (0.30 in)	←	←
Main jet	#115	#120	←
Idle speed	900 ± 100 rpm	1,000 ± 100 rpm	←
Throttle grip free play	2-6 mm (0.08-0.24 in)	←	←
Pilot screw initial opening	See page 4-12	←	←

FUEL SYSTEM

TROUBLESHOOTING

Engine cranks but own't start

1. No fuel in tank.
2. No fuel to carburetor.
3. Engine flooded with fuel.
4. No spark at plug (ignition system faulty).
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. Carburetor faulty.
4. Fuel contaminated.
5. Intake air leak.
6. Idle speed incorrect.

Rough idle

1. Ignition system faulty.
2. Idle speed incorrect.
3. Incorrect carburetor synchronization.
4. Carburetor faulty.
5. Fuel contaminated.

Misfiring during acceleration

1. Ignition system faulty.

Misfiring during acceleration

- Ignition system faulty.

Backfiring

1. Ignition system faulty.
2. Carburetor faulty.

Poor performance (driveability) and poor fuel economy

1. Fuel system clogged.
2. Ignition system faulty.

Lean mixture

1. Clogged fuel jets.
2. Piston stuck closed.
3. Faulty float valve.
4. Float level low.
5. Fuel cap vent blocked.
6. Fuel strainer screen clogged.
7. Restricted fuel line.
8. Intake air leak.
9. Restricted or faulty fuel pump

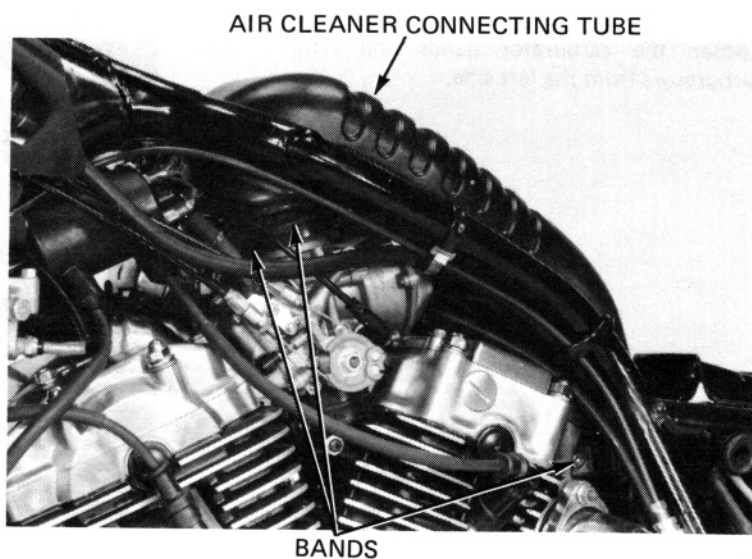
Rich mixture

1. Clogged air jets.
2. Faulty float valve.
3. Float level too high.
4. Choke bystarter stuck clogged.
5. Dirty air cleaner.

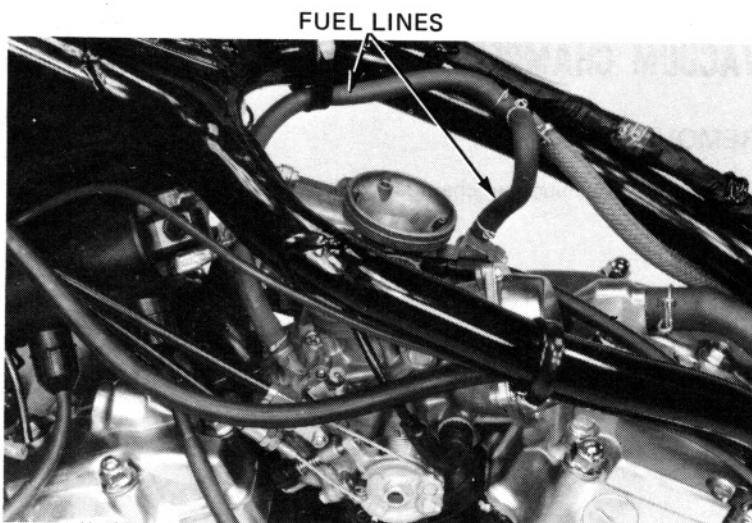
CARBURETOR REMOVAL

Remove the fuel tank (page 4-13).

Loosen the air cleaner connecting tube bands and remove the connecting tube.



Disconnect the fuel lines at the carburetors.



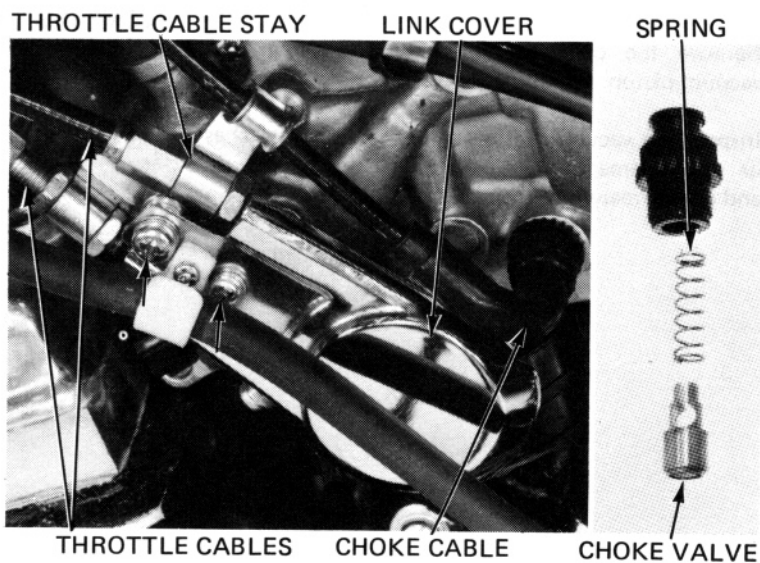
Remove the screws attaching the throttle cable stay and the throttle link cover and stay.

Disconnect the throttle cables from the throttle drum.

Remove the choke cables from the carburetors.

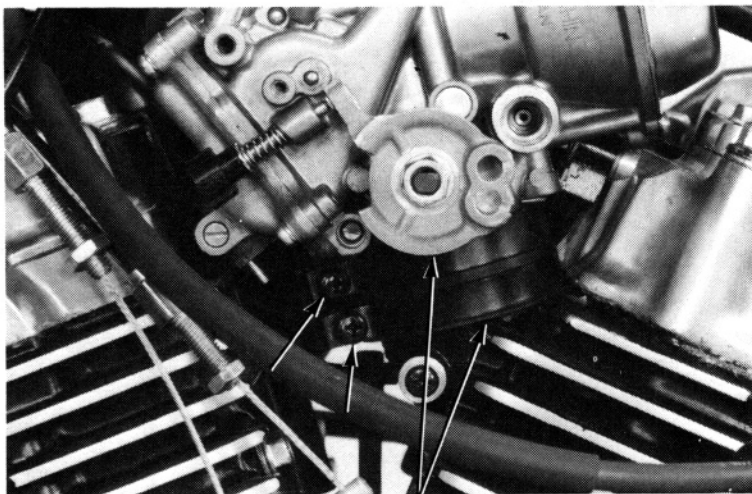
Remove the choke valve and spring from the choke cable.

Check the choke valve and spring for nicks, grooves, or other damage.



FUEL SYSTEM

Loosen the carburetor bands and remove the carburetors from the left side.

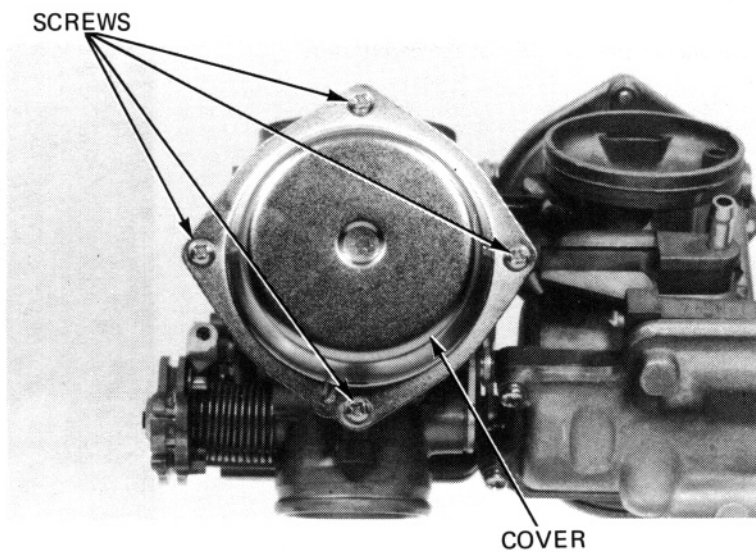


CARBURETOR BANDS

VACUUM CHAMBER

REMOVAL

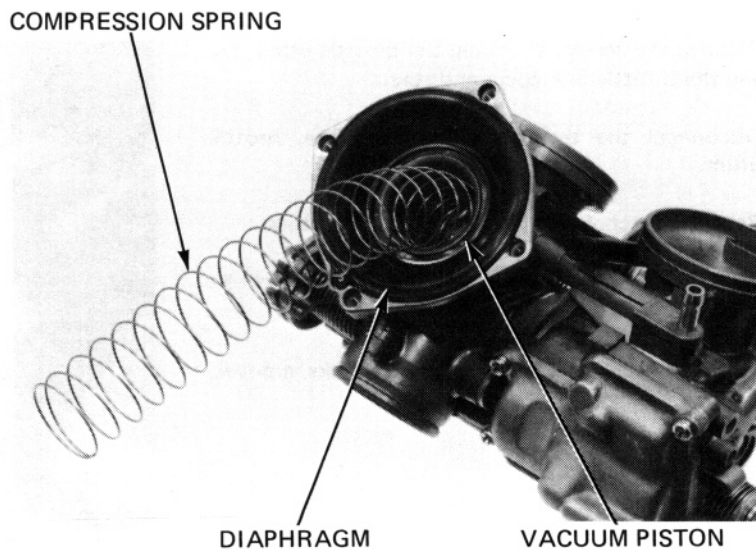
Remove the four vacuum chamber cover screws and cover.



COVER

Remove the compression spring, diaphragm and vacuum piston.

Inspect the vacuum piston for wear, nicks, scratches or other damage. Make sure the piston moves up and down freely in the chamber.

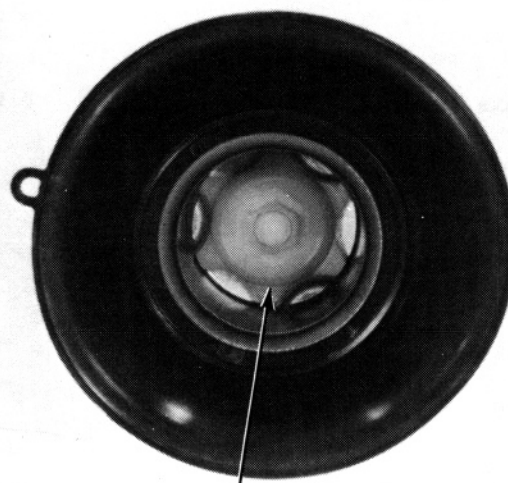


Push the needle holder in and turn it 60 degrees with an 8 mm socket. Then remove the needle holder, spring and needle from the piston.

Remove the plastic washer from the piston.

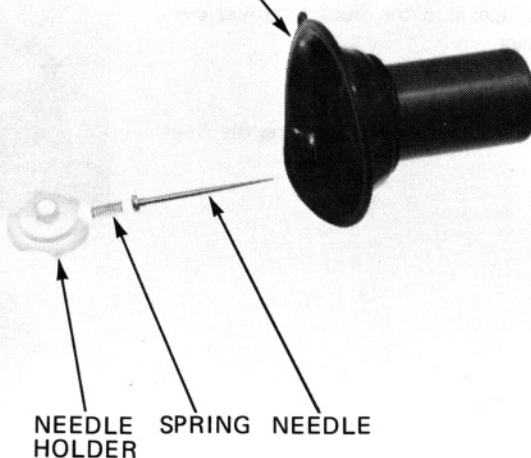
Inspect the needle for excessive wear at the tip and for bending, or other damage.

Check the diaphragm for deterioration and tears.



NEEDLE HOLDER

DIAPHRAGM



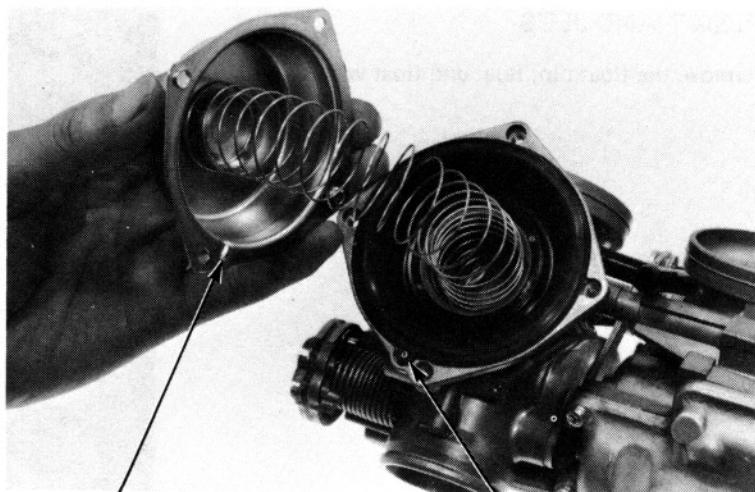
NEEDLE HOLDER

SPRING

NEEDLE

INSTALLATION

Installation is essentially the reverse of removal. Install the chamber cover so that its cavity aligns with the hole in the diaphragm.



CAVITY

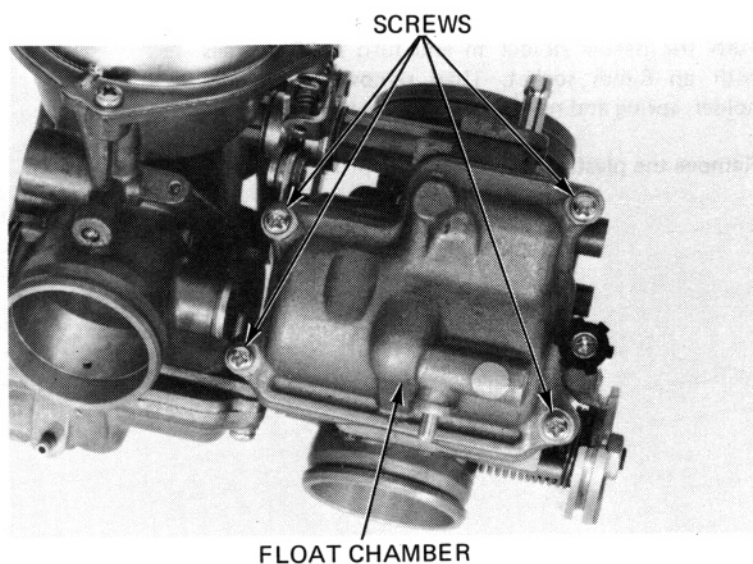
HOLE

FUEL SYSTEM

FLOAT CHAMBER

REMOVAL

Remove the four float chamber screws and the float chamber.

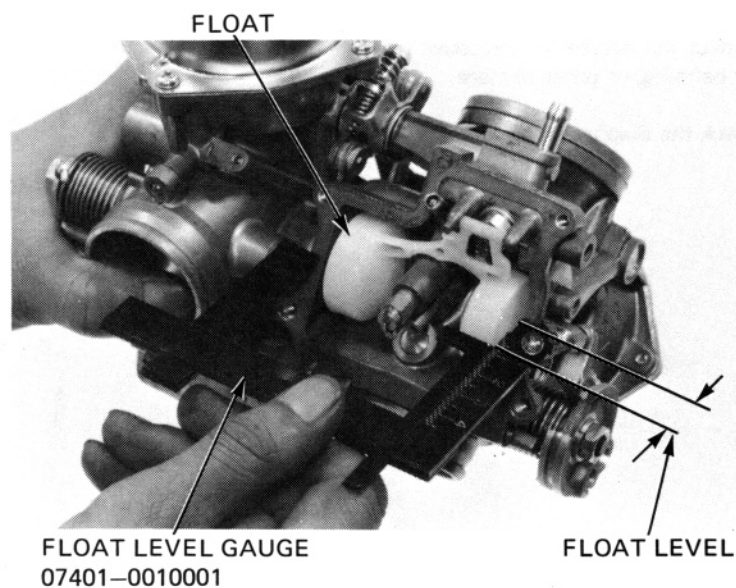


FLOAT LEVEL

Measure the float level with the carburetor inclined 15° – 45° from vertical and the float tang just contacting the float valve.

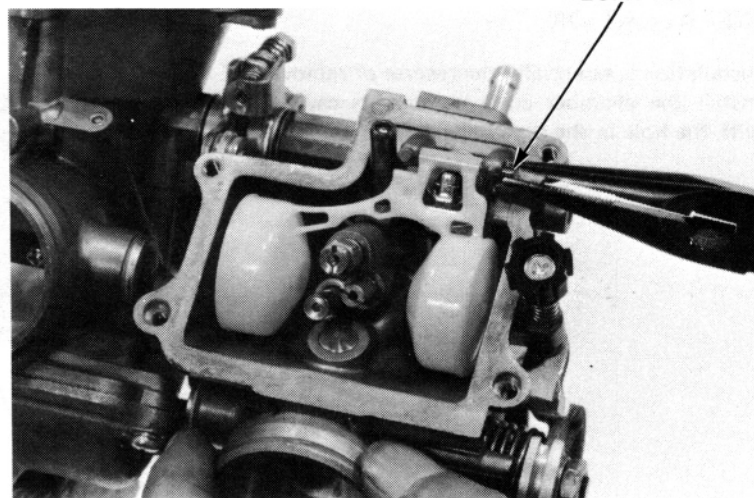
SPECIFICATIONS: 7.5 mm (0.30 in)

Adjust the float level by carefully bending the float tang.



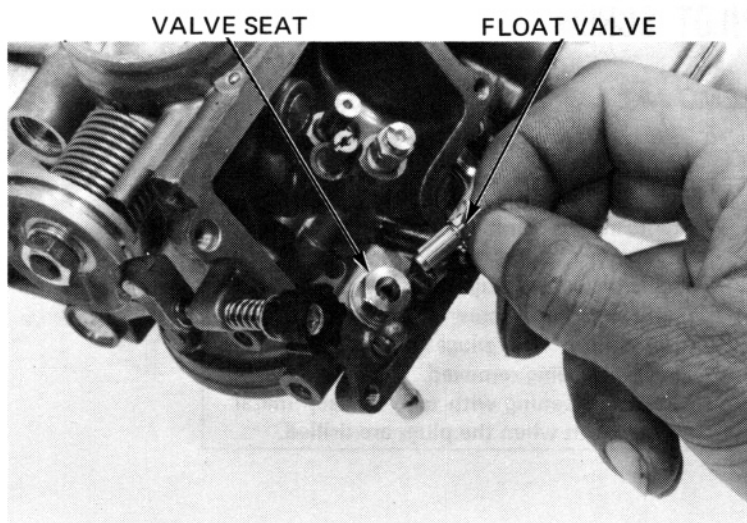
FLOAT AND JETS

Remove the float pin, float and float valve.



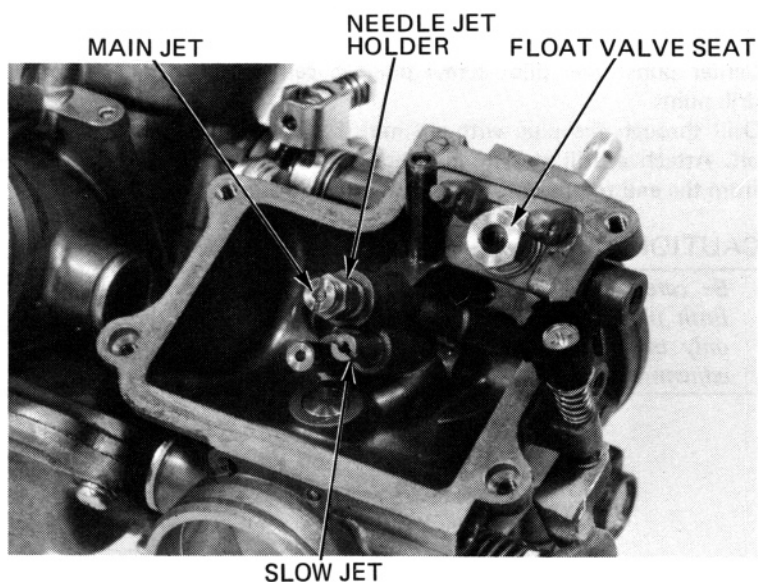
Inspect the float valve for grooves and nicks.

Inspect the operation of the float valve.



Remove the main jet, needle jet holder and slow jet.

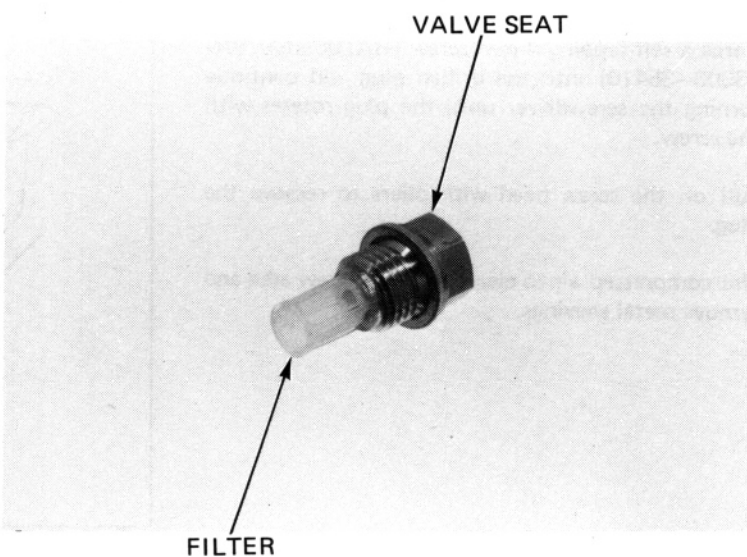
Remove the float valve seat and filter.



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

ASSEMBLY

Assemble the float chamber components in the reverse order of disassembly.



PILOT SCREW

REMOVAL

NOTE:

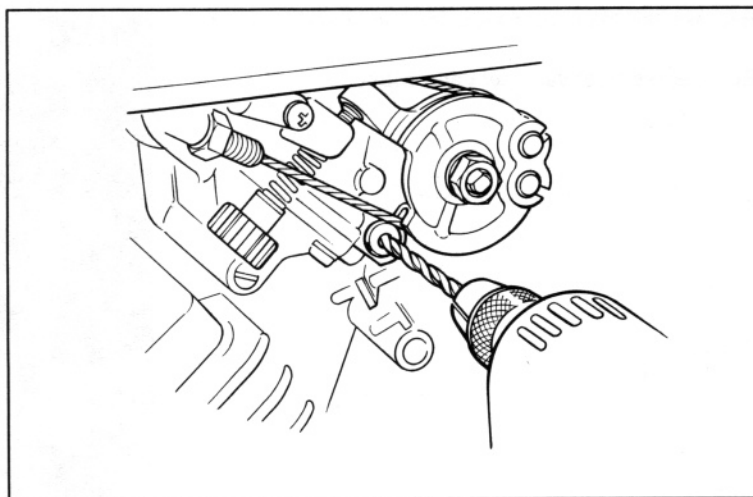
- The pilot screws are factory pre-set and should not be removed unless the carburetors are overhauled.
- The pilot screw plugs are factory installed to prevent pilot screw misadjustment. Do not remove the plugs unless the pilot screws are being removed.
- Cover all opening with tape to keep metal particles out when the plugs are drilled.

Center punch the pilot screw plug to center the drill point.

Drill through the plug with a 4 mm (5/32 in) drill bit. Attach a drill stop to the bit, 3 mm (1/8 in) from the end to prevent drilling into the pilot screw.

CAUTION:

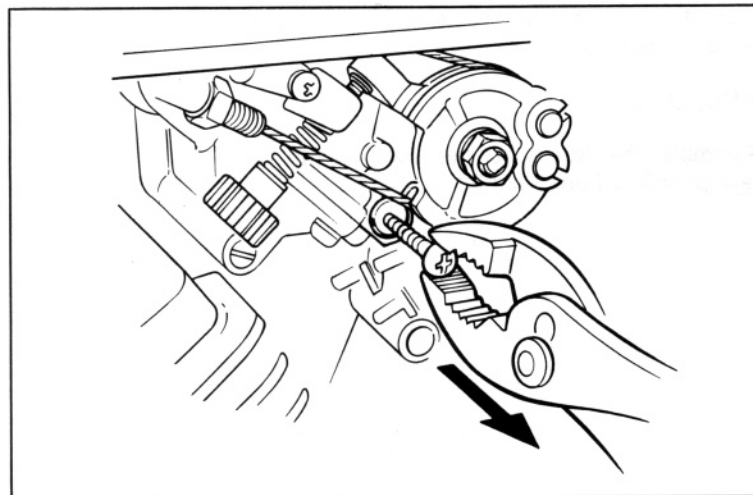
Be careful not to drill into the pilot screw. Both pilot screws must be replaced even if only one requires it, for proper pilot screw adjustment (page 4-12).



Force a self-tapping 4 mm screw (H/C 069399, P/N 93903-35410) into the drilled plug and continue turning the screwdriver until the plug rotates with the screw.

Pull on the screw head with pliers to remove the plug.

Use compressed air to clean the pilot screw area and remove metal shavings.



Turn each pilot screw in and carefully count the number of turns before it seats lightly. Make a note of this to use as a reference when reinstalling the pilot screws.

CAUTION:

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

Remove the pilot screws and inspect them. Replace them if they are worn or damaged.

INSTALLATION

Install the pilot screws and return them to their original position as noted during removal. Perform pilot screw adjustment if new pilot screws are installed (page 4-12).

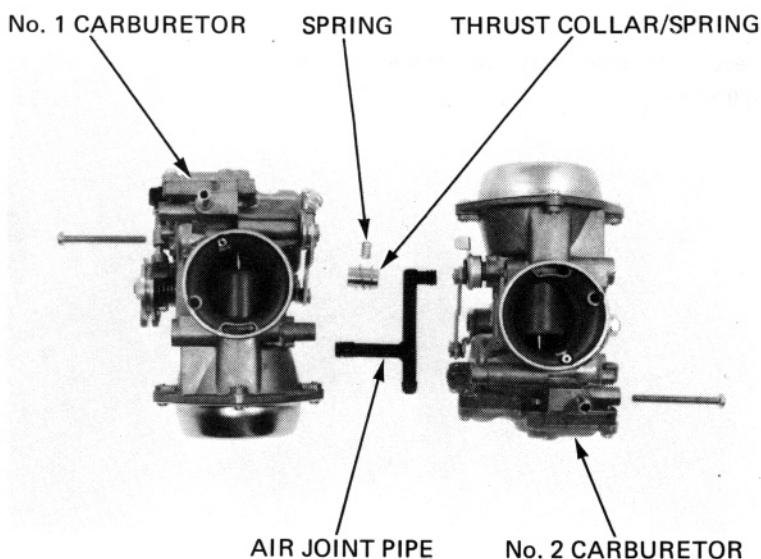
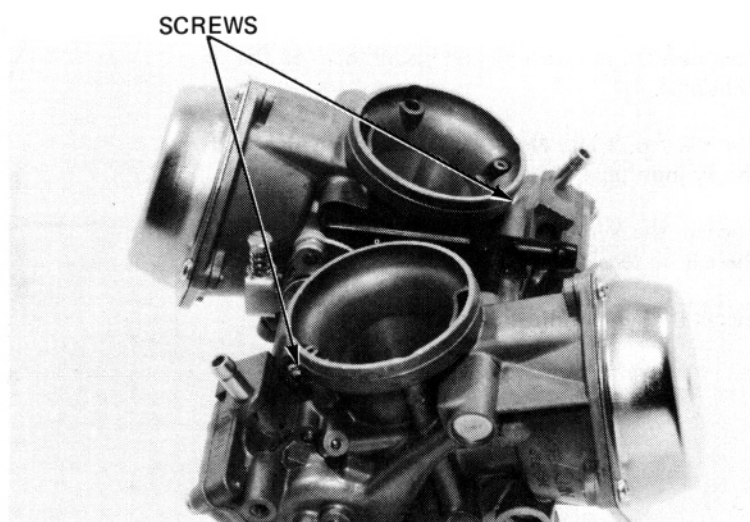
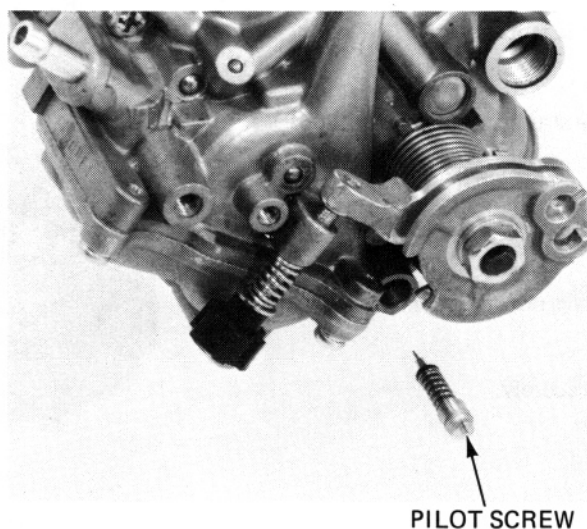
NOTE:

- Do not install new plugs on new pilot screw holes until after adjustment has been made.
- If you replace the pilot screw in one carburetor, you must replace the pilot screw in the other carburetor for proper pilot screw adjustment.

CARBURETOR SEPARATION

Remove the two screws assembling the carburetors.

Carefully separate the No. 1 and No. 2 carburetors.



FUEL SYSTEM

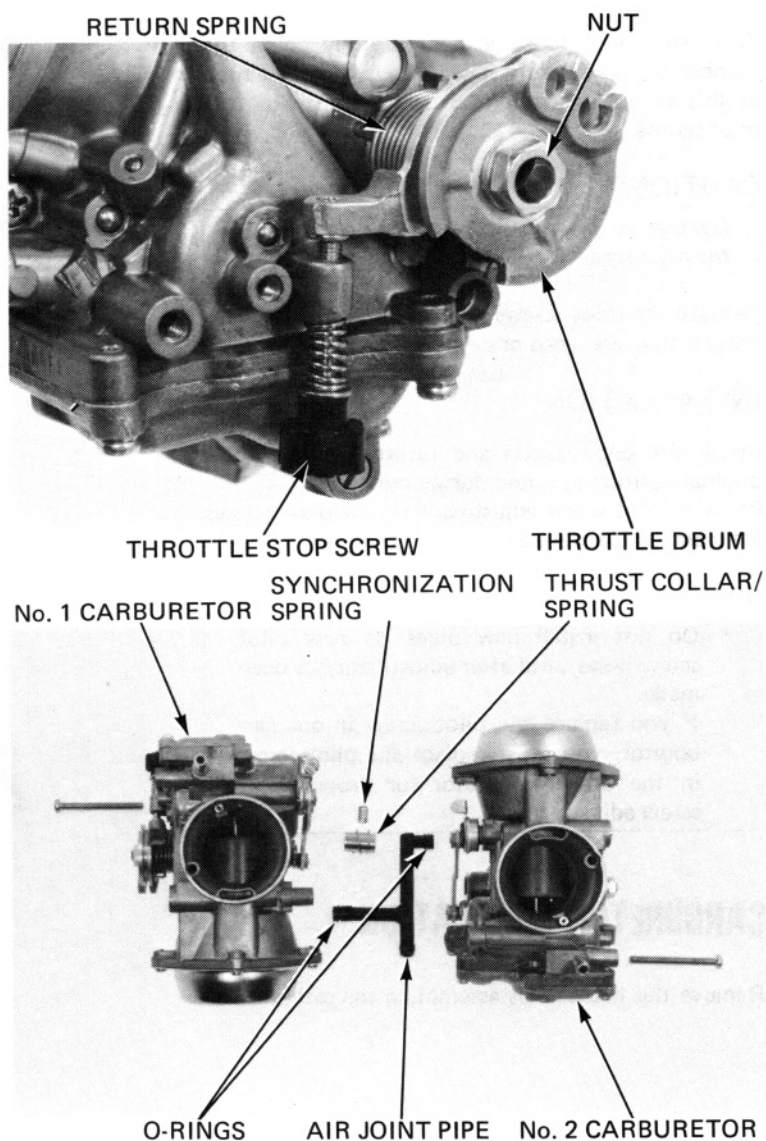
Loosen the throttle stop screw.

Remove the nut attaching the throttle drum and remove the throttle drum and return spring.

CARBURETOR ASSEMBLY

Install the throttle return spring, throttle drum and nut.

Tighten the nut securely.



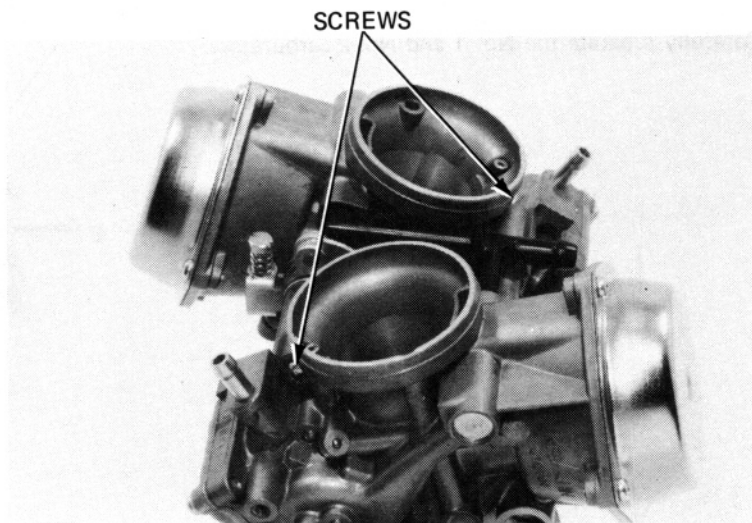
Coat new O-rings with oil and install them on the air joint pipe.

Put the No. 1 and No. 2 carburetors together with the air joint pipe, thrust collar and spring.

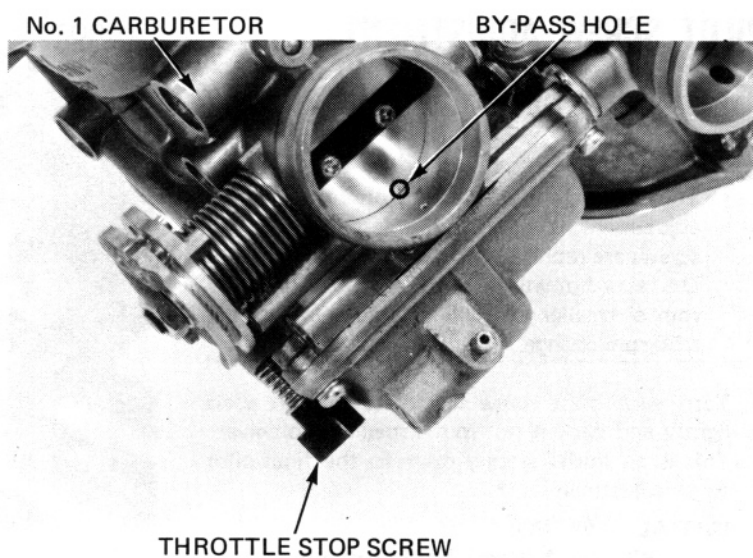
Loosen the synchronization adjusting screw until there is no tension.

Install the synchronization spring.

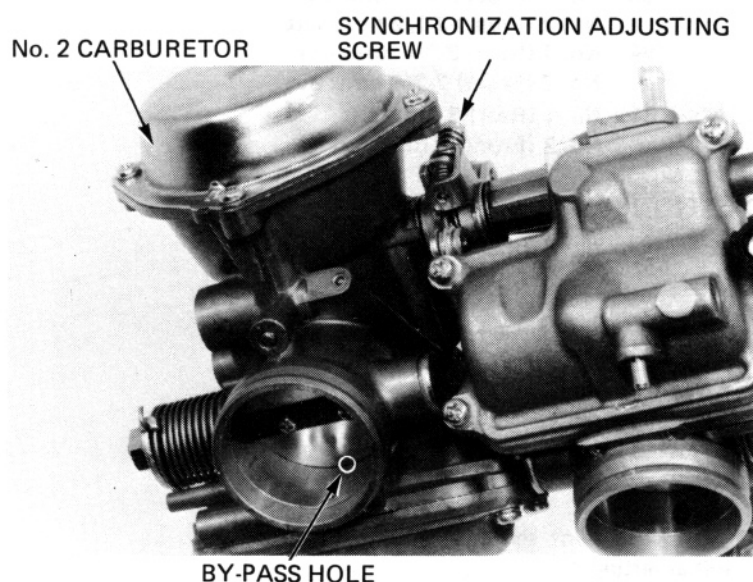
Secure the carburetors together with the two attaching screws.



Turn the throttle stop screw to align the No. 1 throttle valve with the edge of the by-pass hole.



Align the No. 2 throttle valve with the by-pass hole edge by turning the synchronization adjusting screw.



Inspect throttle operation as described below:

- Open the throttle slightly by pressing on the throttle linkage. Then release the throttle.
- Make sure that it returns smoothly.
- Make sure that there is no drag when opening and closing the throttle.

CARBURETOR INSTALLATION

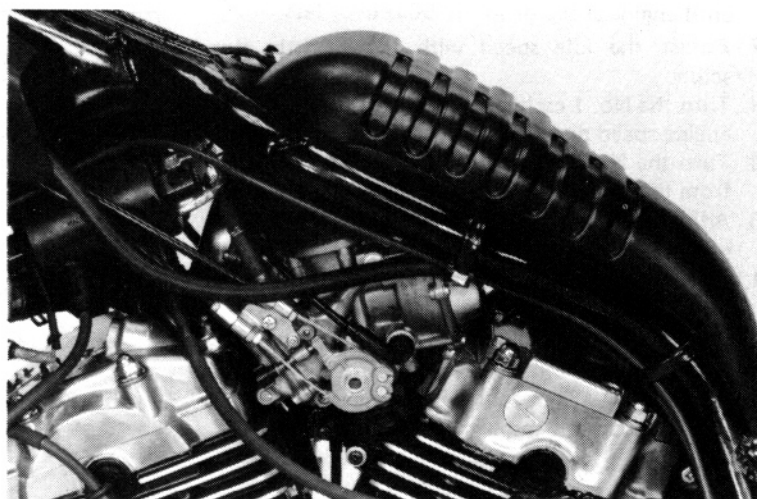
Installation is essentially the reverse of removal.

NOTE:

Rough the throttle and choke cables properly (page 1-9 to 1-11).

Perform the following inspections and adjustments.

- Throttle operation (page 3-5).
- Carburetor choke (page 3-6).
- Carburetor idle speed (page 3-10).
- Carburetor synchronization (page 3-9).



FUEL SYSTEM

PILOT SCREW ADJUSTMENT

IDLE DROP PROCEDURE (U.S.A. ONLY)

NOTE:

- The pilot screws are factory pre-set and no adjustment is necessary unless the pilot screws are replaced (page 4-8).
- Use a tachometer with graduations of 50 rpm or smaller that will accurately indicate a 50 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:

- '83: No. 1 (Rear) 2-1/2 turns out
No. 2 (Front) 2-1/2 turns out
'84: No. 1 (Rear) 2-3/4 turns out
No. 2 (Front) 2-3/4 turns out

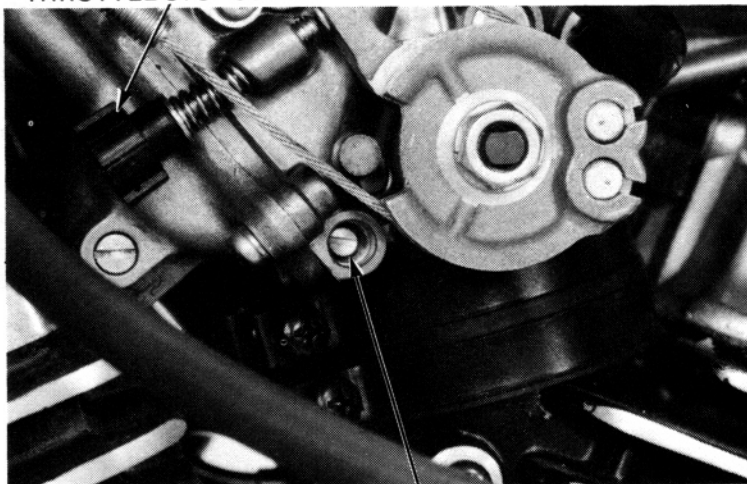
- After '84: No. 1 (Rear) 3 turns out
No. 2 (Front) 3 turns out

CAUTION:

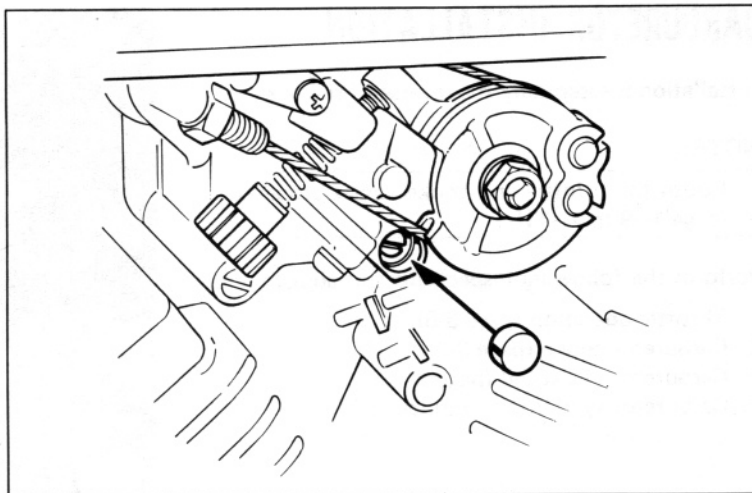
Damage to the pilot screw seat will occur if the pilot screw is tightened against the seat.

2. Warm up the engine to operating temperature. Stop and go driving for 10 minutes is sufficient.
3. Attach a tachometer according to the manufacturer's instructions.
4. Adjust the idle speed with the throttle stop screw.
5. Turn each pilot screw 1/2 turn out from the initial setting.
6. If the engine speed increases by 50 rpm or more, turn each pilot screw out by a continual 1/2 turn until engine speed drops by 50 rpm or less.
7. Adjust the idle speed with the throttle stop screw.
8. Turn the No. 1 carburetor pilot screw in until the engine speed drops 50 rpm.
9. Turn the No. 1 carburetor pilot screw 1 turn out from the position obtained in step 8.
10. Adjust the idle speed with the throttle stop screw.
11. Perform steps 8, 9 and 10 for the No. 2 carburetor pilot screw.
12. Drive new pilot screw plugs into the pilot screw bores with a 7 mm valve guide drive (P/N 07942-8230000). When fully seated the plug surfaces will be recessed 1 mm.

THROTTLE STOP SCREW



PILOT SCREW



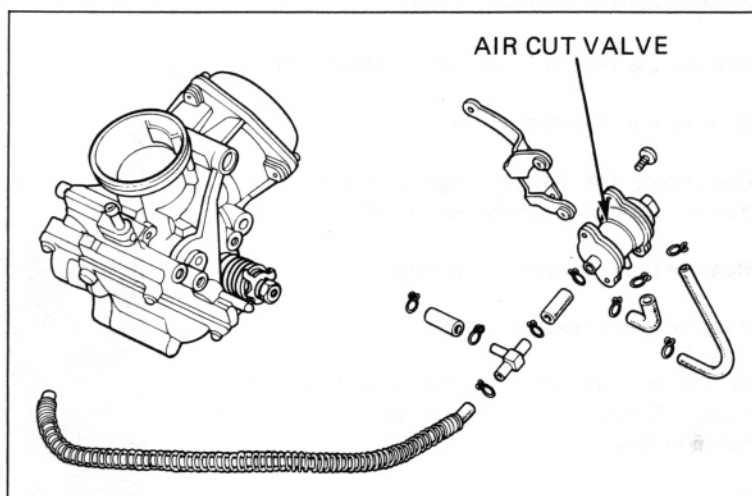
AIR CUT VALVE (After '84)

Remove the air cut valve bracket from the carburetor.

CAUTION:

Do not disassemble the air cut valve.

Install the air cut valve in the reverse order of removal.



FUEL TANK

WARNING

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

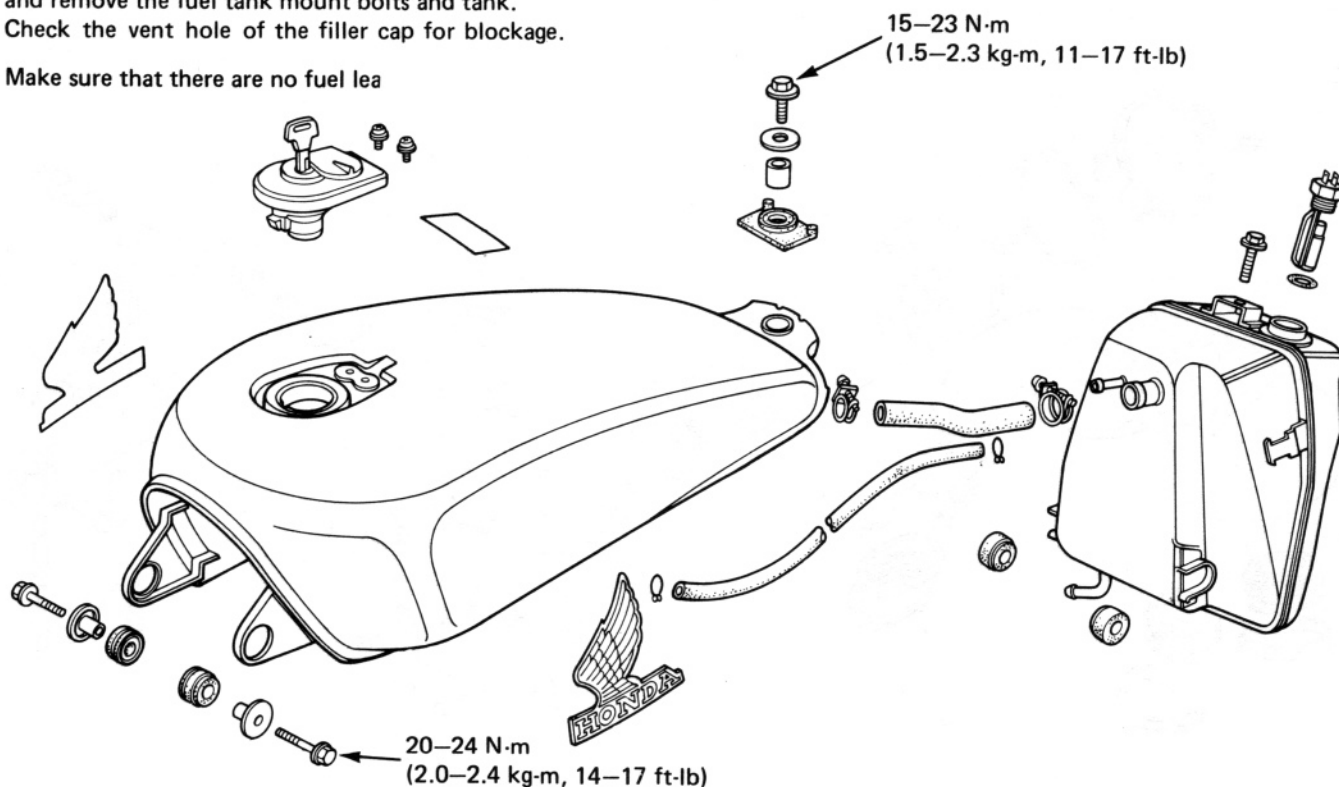
Turn the fuel valve OFF and disconnect the fuel line at the fuel filter.

Turn the fuel valve ON and drain the fuel into a clean container.

Disconnect the fuel lines at the auxiliary fuel tank and remove the fuel tank mount bolts and tank.

Check the vent hole of the filler cap for blockage.

Make sure that there are no fuel leaks.



FUEL SYSTEM

AUXILIARY FUEL TANK

Remove the seat, main fuel tank and side covers.

Remove the regulator/rectifier.

Disconnect the battery negative cable, then the positive cable and remove the battery.

Remove the rear wheel (page 16-3).

Remove rear fenders A and B.

Detach the auxiliary fuel tank hose from the fuel pump. Remove the auxiliary fuel tank mounting bolt and tank.

Install the auxiliary fuel tank in the reverse order of removal.

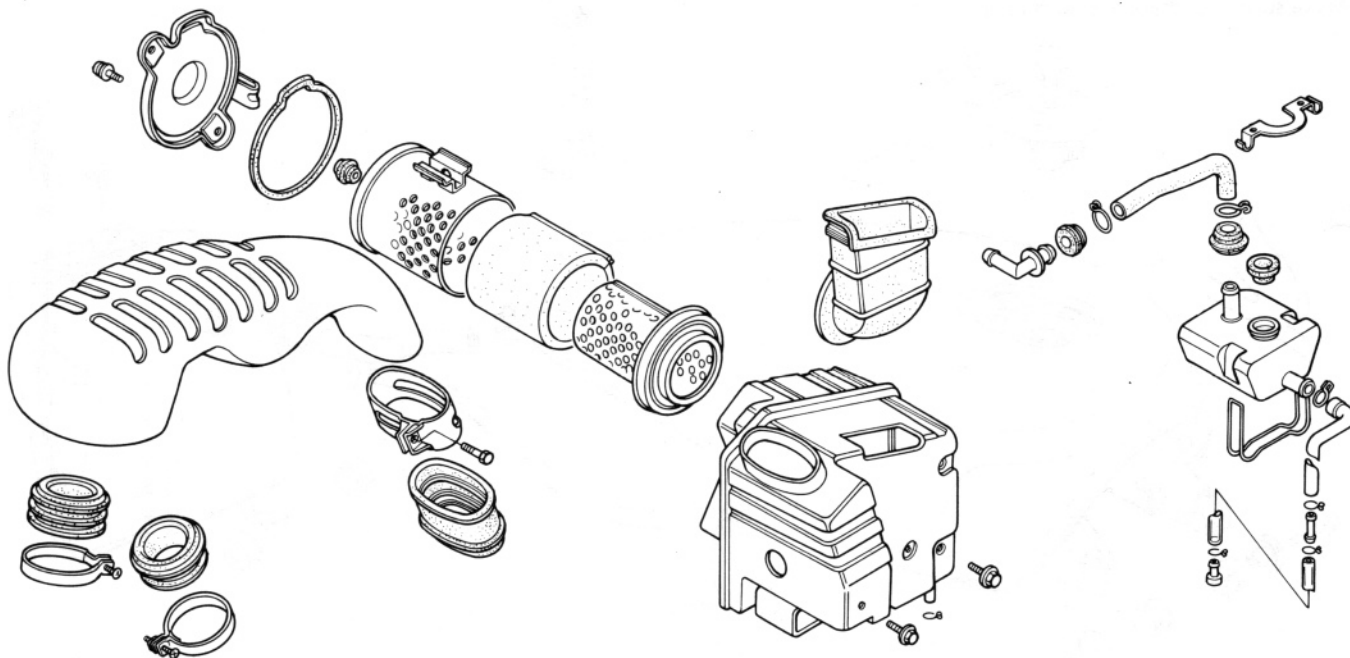


AIR CLEANER CASE

Check the air cleaner case for deterioration. Replace it if it has any signs of deterioration.

CRANKCASE VENTILATION SYSTEM

Check that the breather tube is not restricted.



FUEL PUMP

Remove the frame right side cover.

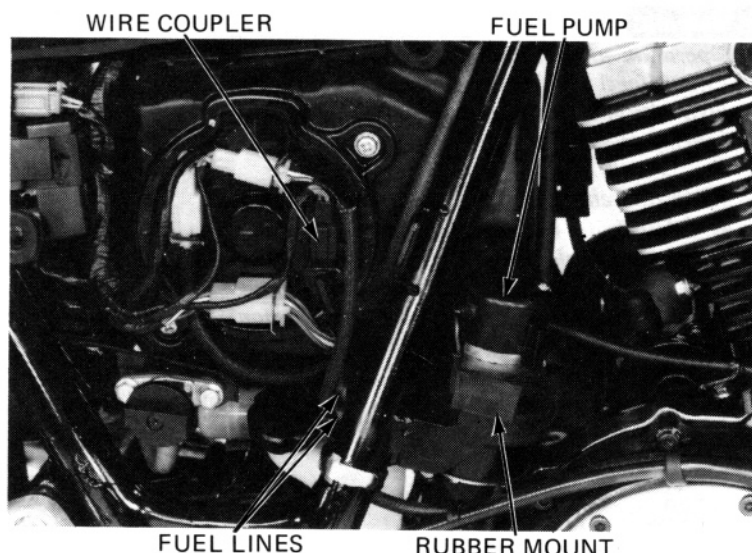
Disconnect the fuel pump wire coupler.

Turn the fuel valve OFF.

Detach the fuel inlet and outlet lines from the fuel pump.

Remove the fuel pump from its rubber mount.

Install the fuel pump in the reverse order of removal.



HIGH ALTITUDE ADJUSTMENT (USA only)

When the vehicle is to be operated continuously above 2,000 m (6,500 feet) the carburetor must be readjusted as follows to improve driveability and decrease exhaust emissions.

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

Remove each pilot screw plug (page 4-8).

Turn each pilot screw clockwise 1 turn.

Adjust the idle speed to specification (page 4-1), with the throttle stop screw.

Drive new pilot screw plugs into the pilot screw bores (page 4-12).

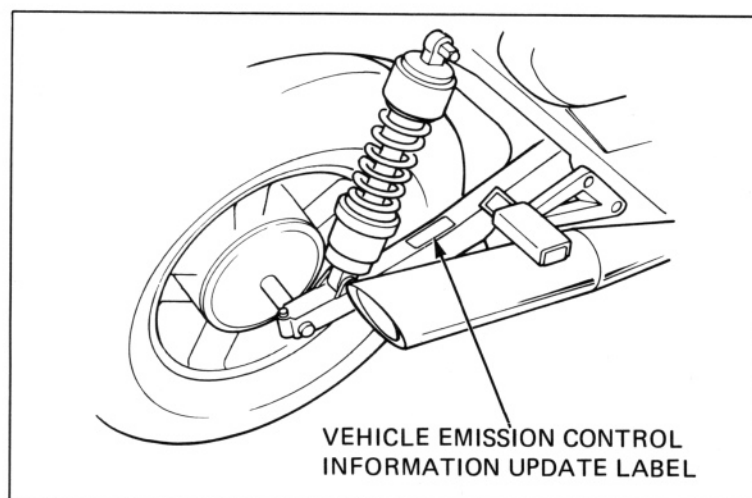
NOTE:

This adjustment must be made at high altitude to ensure proper high altitude operation.

Attach a Vehicle Emission Control Information Update label onto the swingarm as shown. See SL #132 for information on obtaining the label.

NOTE:

Do not attach the label to any part that can be easily removed from the vehicle.



VEHICLE EMISSION CONTROL INFORMATION UPDATE
HONDA MOTOR CO., LTD.

THIS VEHICLE HAS BEEN ADJUSTED TO
IMPROVE EMISSION CONTROL PERFORMANCE
WHEN OPERATED AT HIGH ALTITUDE.

ALTITUDE PERFORMANCE ADJUSTMENT INSTRUCTIONS
ARE AVAILABLE AT YOUR AUTHORIZED HONDA DEALER.



FUEL SYSTEM

WARNING

Operation at an altitude lower than 1,500 m (5,000 feet) 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 1,500 m (5,000 feet), turn each pilot screw counterclockwise 1 turn to its original position after removing each pilot screw plug and adjust the idle speed to specification (page 4-1). Drive new pilot screw plugs into the pilot screw bores (page 4-12). Be sure to do these adjustments at low altitude.

PURGE CONTROL VALVE INSPECTION (CALIFORNIA MODEL)

NOTE:

The purge control valve should be inspected if hot restart is difficult.

Check all fuel tank, Purge Control Valve (PCV), and charcoal canister hoses to be sure they are not kinked and are securely connected. Replace any hose that shows signs of damage or deterioration.

NOTE:

The PCV is located on the frame above the front cylinder.

Disconnect the PCV hose at the 3-way joint and remove the PCV from its mount. Refer to the routing label on the inside of the left side cover for hose connections.

Connect a vacuum pump to the 8 mm I.D. hose that goes to the 3-way joint. Apply the specified vacuum to the PCV.

SPECIFIED VACUUM: 250 mm (9.8 in) Hg

The specified vacuum should be maintained. Replace the PCV if vacuum is not maintained.

Remove the vacuum pump and connect it to the vacuum hose that goes to the left carburetor body. Apply the specified vacuum to the PCV.

SPECIFIED VACUUM: 250 mm (9.8 in) Hg

The specified vacuum should be maintained. Replace the PCV if vacuum is not maintained.

Connect a pressure pump to the 8 mm I.D. hose that goes to the charcoal canister. While applying the specified vacuum to the PCV hose that goes to the 3-way joint pump air through the canister hose. Air should flow through the PCV and out the hose that goes to the 3-way joint. Replace the PCV if air does not flow out.

CAUTION:

To prevent damage to the purge control valve, do not use high air pressure sources. Use a hand operated air pump only.

Remove the pumps, install the PCV on its mount, route and reconnect the hoses according to the routing label.

