

19. EXHAUST EMISSION CONTROL SYSTEM

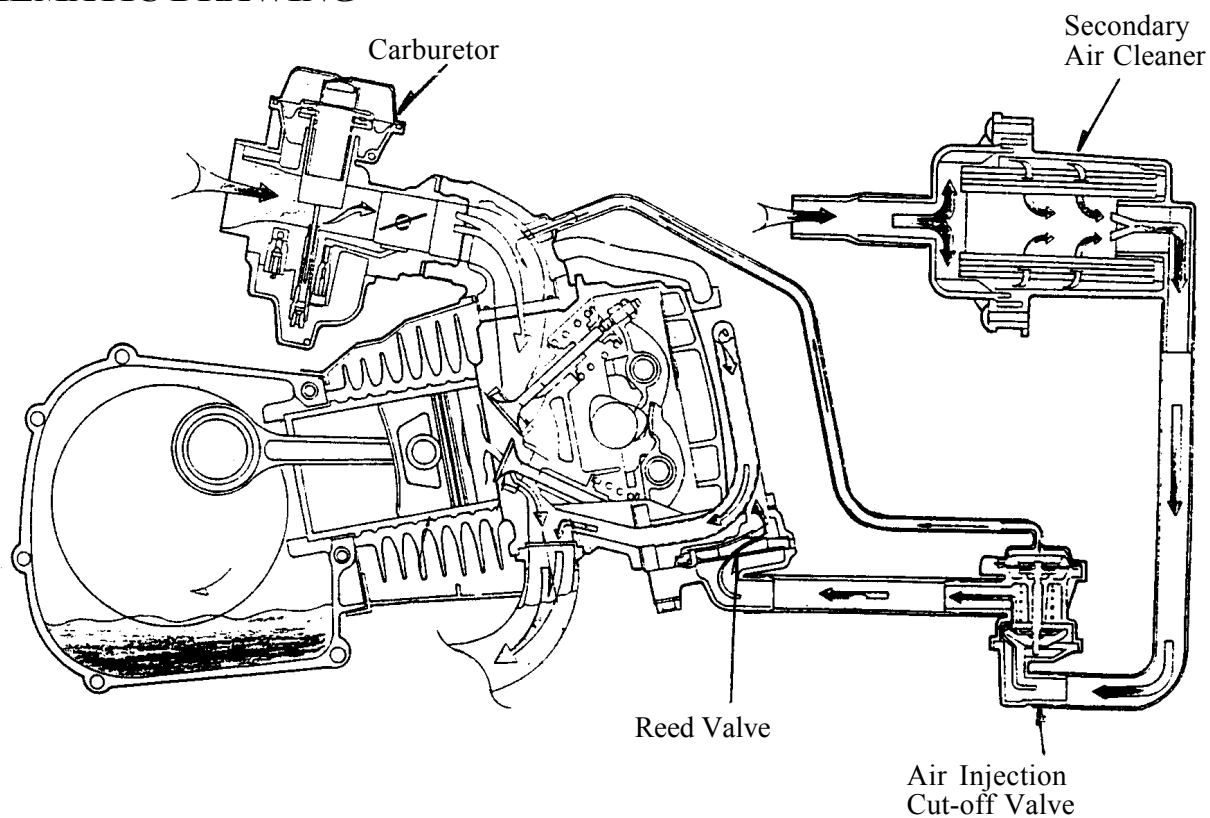
19

EXHAUST EMISSION CONTROL SYSTEM

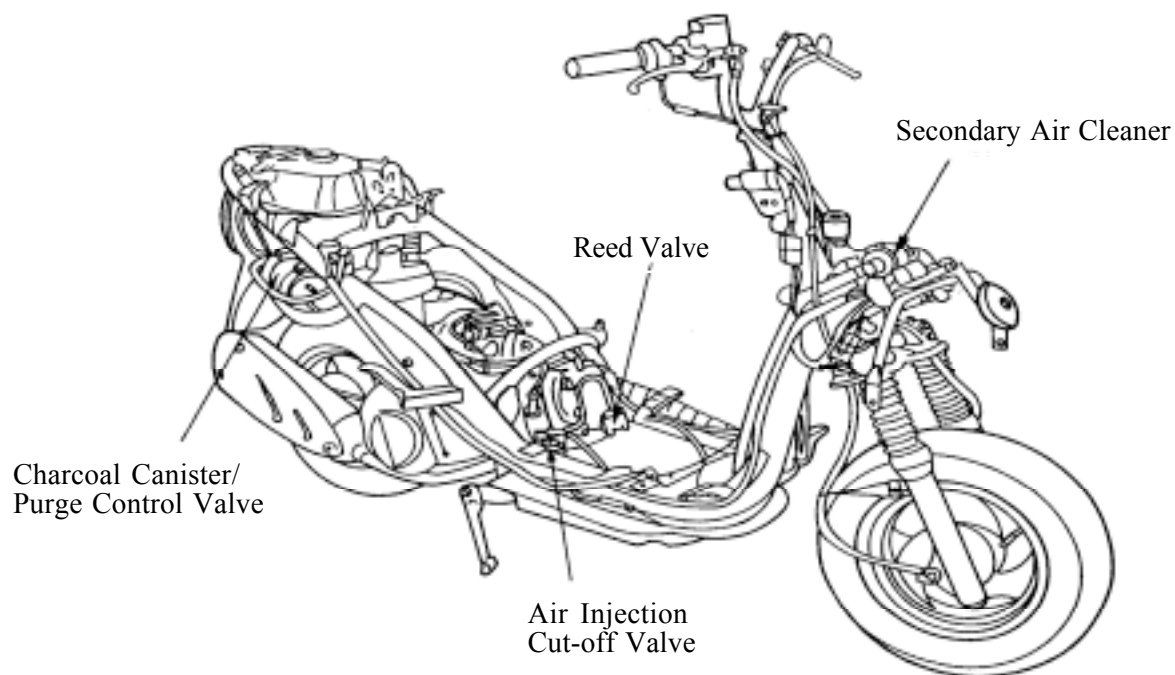
| | |
|---|------|
| SCHEMATIC DRAWING | 19-1 |
| EXHAUST EMISSION CONTROL SYSTEM FUNCTION..... | 19-2 |
| TROUBLESHOOTING | 19-2 |
| SERVICE INFORMATION | 19-3 |
| SECONDARY AIR CLEANER..... | 19-4 |
| AIR INJECTION CUT-OFF VALVE (A.I.C.V.)..... | 19-5 |
| REED VALVE | 19-6 |

19. EXHAUST EMISSION CONTROL SYSTEM

SCHEMATIC DRAWING



EXHAUST EMISSION CONTROL SYSTEM LOCATION



19. EXHAUST EMISSION CONTROL SYSTEM

EXHAUST EMISSION CONTROL SYSTEM

The exhaust emission control system adopted in this model utilizes the reed valve to draw secondary air into the exhaust system for re-combustion by means of exhaust pulsation so as to minimize the exhaust emission.

FUNCTION

| Item | Purpose | Function |
|-----------------------------|--|---|
| Secondary Air Cleaner | Filter secondary air. | It filters the fresh air drawn for re-burning to prevent dirt or dust from affecting the operation of the air injection cut-off valve. |
| Air Injection Cut-off Valve | Prevent exhaust muffler noise and backfiring at sudden deceleration. | The air injection cut-off valve usually opens to lead air into the exhaust muffler in which air is re-burned to reduce CO. When the throttle valve closes suddenly, the air injection cut-off valve is actuated by vacuum to close and cut off secondary air in order to prevent exhaust muffler backfiring due to air in the exhaust system. |
| Reed Valve | Control the secondary air inlet to reduce CO. | When the motorcycle speed is less than 50km per hour, the reed valve operates to draw secondary air into the exhaust system for re-combustion. |

TROUBLESHOOTING

High CO at idle speed

1. Damaged or clogged reed valve
2. Damaged or clogged air injection cut-off valve
3. Clogged air cleaner

Backfiring at sudden deceleration

1. Damaged reed valve (malfunction)
2. Faulty air injection cut-off valve (unable to close)
3. Carburetor incorrectly adjusted
4. Faulty air cut-off valve
5. Leaking vacuum tube

Exhaust muffler noise

1. Faulty air injection cut-off valve
2. Broken vacuum tube
3. Faulty reed valve

19. EXHAUST EMISSION CONTROL SYSTEM

SERVICE INFORMATION

GENERAL INSTRUCTIONS

- During operation, be careful to avoid scalding caused by the exhaust muffler.
- Note the locations of tubes for proper installation.
- Replace any damaged tube with a new one.
- Make sure to tighten the connector of each tube securely

TOOLS

- Vacuum pump

SPECIFICATIONS

Air injection cut-off valve actuating pressure —

250mm/Hg — 30 liter/min.

Reed valve stopper clearance — 4.6mm

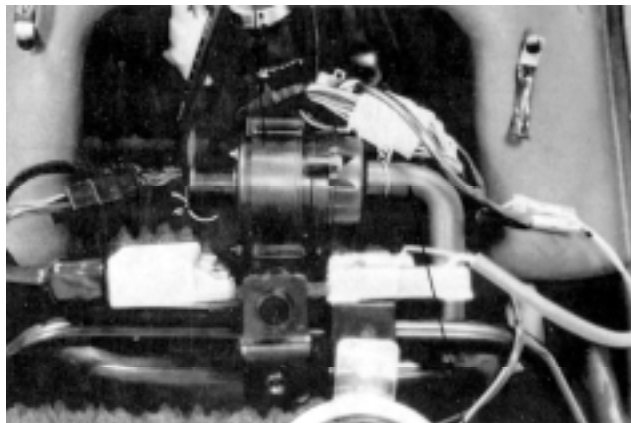
19. EXHAUST EMISSION CONTROL SYSTEM

SECONDARY AIR CLEANER

REMOVAL

1. Remove the front cover. (⇒2-4)
2. Disconnect the secondary air cleaner connecting tube.
Remove the air cleaner attaching bolts and the air cleaner.

Secondary Air Cleaner



Connecting Tube

DISASSEMBLY

1. Remove the two screws attaching the air cleaner cover to remove the cover.
2. Remove the air cleaner element.
3. Inspect the air cleaner.

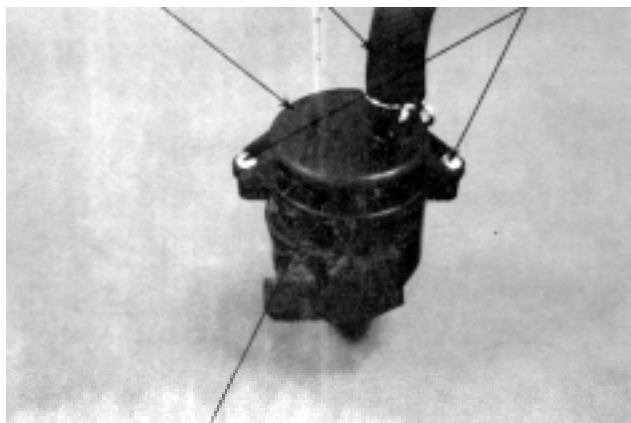
INSTALLATION

1. The installation sequence is the reverse of removal.

Cover

Air Outlet Tube

Screws



O-ring

Air Inlet Tube

*

- The secondary air cleaner must be assembled and installed properly to avoid dust entering the air cleaner.

19. EXHAUST EMISSION CONTROL SYSTEM

AIR INJECTION CUT-OFF VALVE (A.I.C.V.)

REMOVAL

1. Remove the front right side cover. (⇒2-4)
2. Disconnect all the tubes that go to the air injection cut-off valve.
3. Remove the air injection cut-off valve.

Air Injection Cut-off Valve

Vacuum Tube



Air Inlet Tube

Tube to Reed Valve

INSPECTION

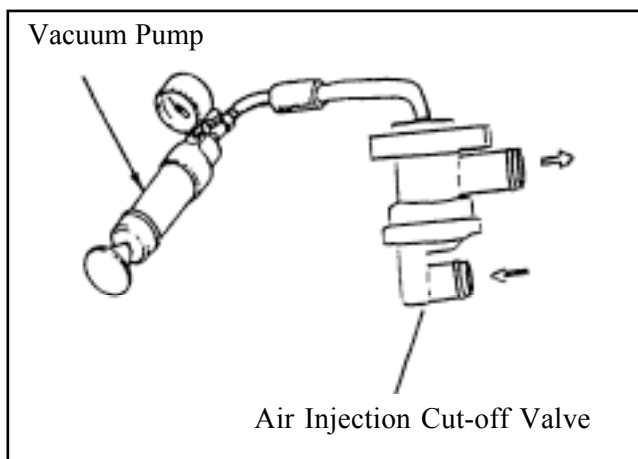
1. Inspect the air injection cut-off valve flow using a vacuum pump. If the flow is not within the specified values, replace with a new one.
2. The flow should be at least 30 liter/min when a vacuum of 250mm/Hg is applied.
3. The flow should be at least 1.6 liter/min when a vacuum of 320mm/Hg is applied.
4. Check each connecting tube for cracks or damage and replace if necessary.

INSTALLATION

1. The installation sequence is the reverse of removal.

*

- When installing, be careful not to bend or twist the tubes and check for proper installation.
- The tube length is very important to its performance, use the tube of same specification for replacement.

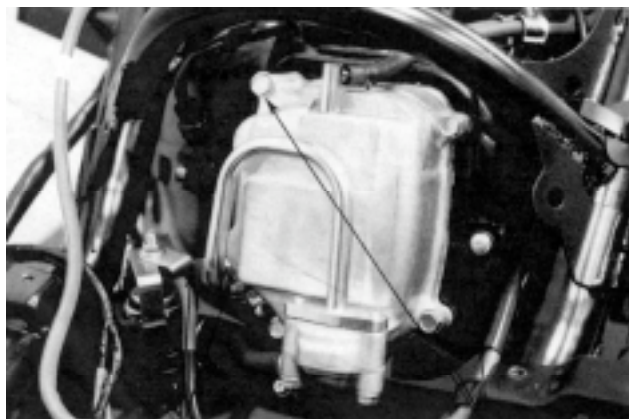


19. EXHAUST EMISSION CONTROL SYSTEM

REED VALVE

REMOVAL

1. Remove the frame center cover.
2. Remove the floor board.
3. Disconnect the secondary air inlet tube connector.
4. Remove the four cylinder head cover bolts and two secondary air outlet tube bolts.



Secondary Air Inlet
Tube Bolt

Cylinder Head Cover Bolts

INSPECTION

1. Remove the two bolts attaching the reed valve cover and the reed valve.
2. Check the reed valve for cracks, damage, big clearance or weak reeds. Replace if necessary.
3. Check the gasket and O-ring for damage or deterioration and replace if necessary.
4. Reed valve stopper clearance: 4.6mm

INSTALLATION

Install the reed valve in the reverse order of removal.

*

- When installing, be careful not to bend or twist the tubes and check for proper installation.



Reed Valve Cover Bolts



Reed Stopper