FUEL SYSTEM

		Page
FUEL	PUMP	8-2
CARBURETOR		8-4
SOLEX	CARBURETOR	8-42

FUEL PUMP

DISASSEMBLY

Disassemble the parts in the numerical order shown in the figure.

Fig. 8-1

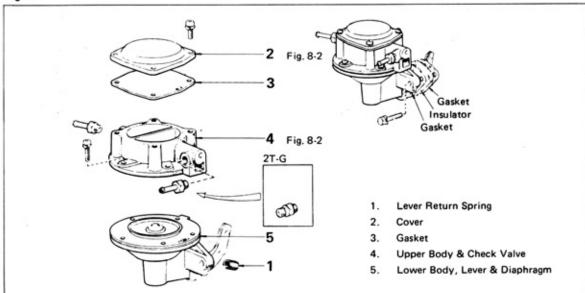
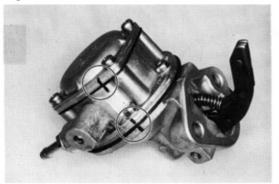


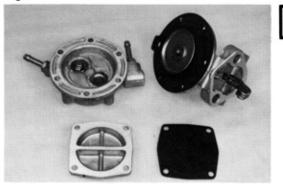
Fig. 8-2





Mark the position of the pump cover and upper body.

Fig. 8-3





INSPECTION

Inspect the diaphragms for tear and check valves for defective operation. Replace if damaged.

ASSEMBLY

Assmeble the parts in the numerical order shown in the figure.

Fig. 8-4

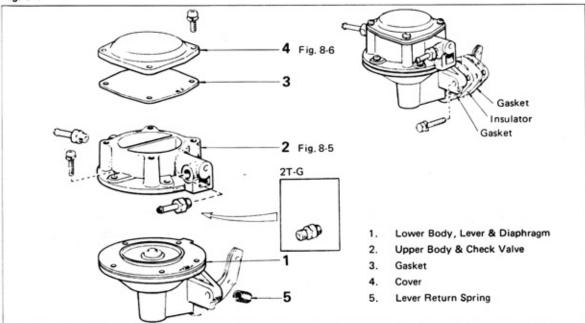
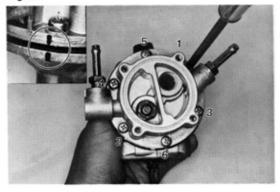


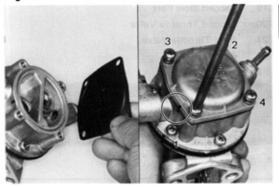
Fig. 8-5





Assemble the lower and upper body in the direction shown in the figure.

Fig. 8-6





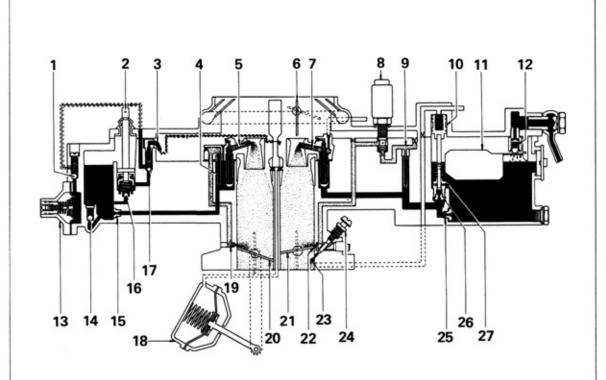
Assemble the upper body and cover over the diaphragm.

Inlet and outlet chamber separating walls should be aligned.

CARBURETOR

CARBURETOR CIRCUIT

Fig. 8-7



- 1. AAP Outlet Check Valve
- 2. Pump Plunger
- 3. Pump Jet
- 4. Second Slow Jet
- 5. Second Main Jet
- 6. Choke Valve
- 7. First Main Jet
- 8. Fuel Cut Solenoid Valve
- 9. First Slow Jet
- 10. Power Piston
- 11. Float
- 12. Needle Valve
- 13. AAP Diaphragm
- 14. AAP Inlet Check Valve

- 15. Second Main Jet
- 16. Pump Inlet Valve
- 17. Pump Outlet Valve
- 18. Second Throttle Valve Diaphragm
- 19. Second Slow Port
- 20. Second Throttle Valve
- 21. First Throttle Valve
- 22. First Slow Port
- 23. Idle Port
- 24. Idle Mixture Adjusting Screw
- 25. First Main Jet
- 26. Power Jet
- 27. Power Valve

Fig. 8-8



DISASSEMBLY

Air Horn

Before disassembling, check following items.

 Measure the heating coil resistance with an ohmmeter.

Resistance: $7.5 - 10.0 \Omega$

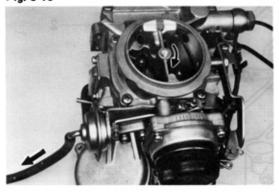
Fig. 8-9





2. Check the choke valve action.

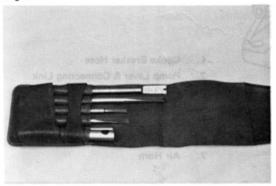
Fig. 8-10





Check the choke breaker diaphragm action. Automatic choke.

Fig. 8-11





Use SST for carburetor servicing. SST[09860-11011]

Disassemble the parts in the numerical order shown in the figure.

Fig. 8-12

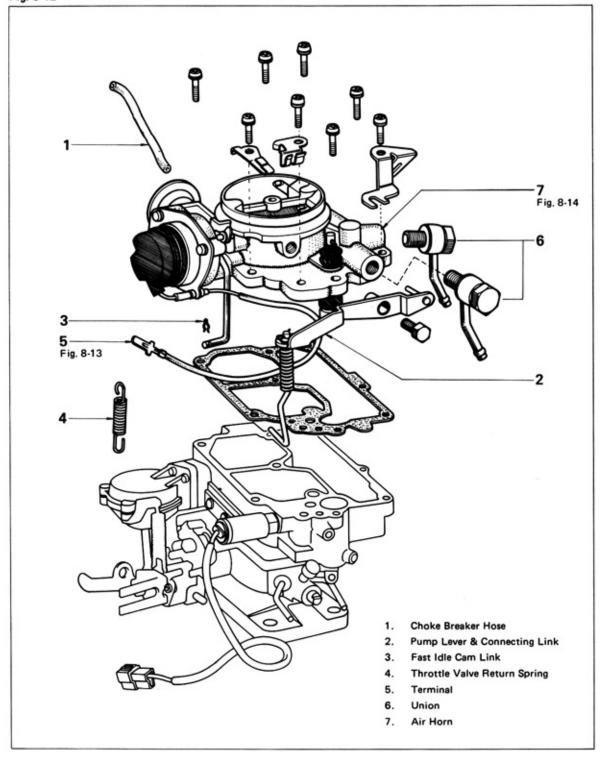
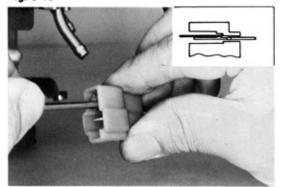
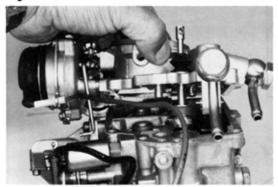


Fig. 8-13



Remove the terminal from the connecter.

Fig. 8-14





Lift out the air horn.

Float

Disassemble the parts in the numerical order shown in the figure.

Fig. 8-15

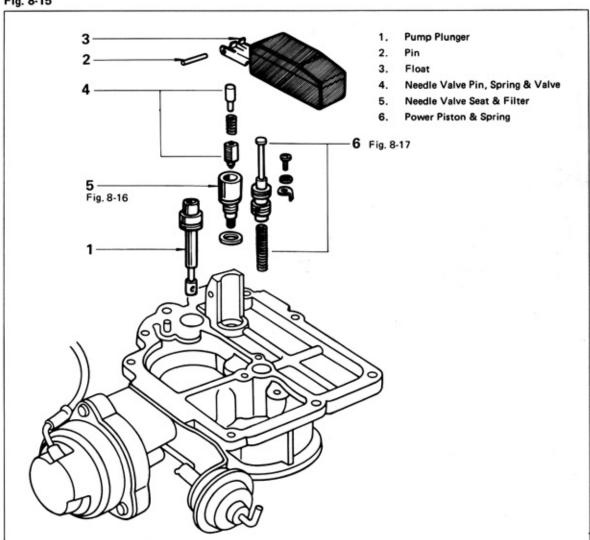
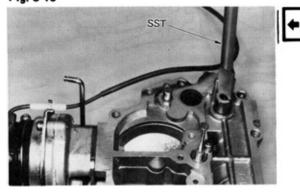
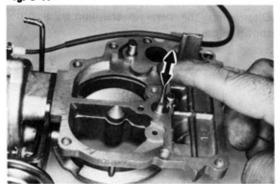


Fig. 8-16



Remove the needle valve seat with SST. SST[09860-11011]

Fig. 8-17



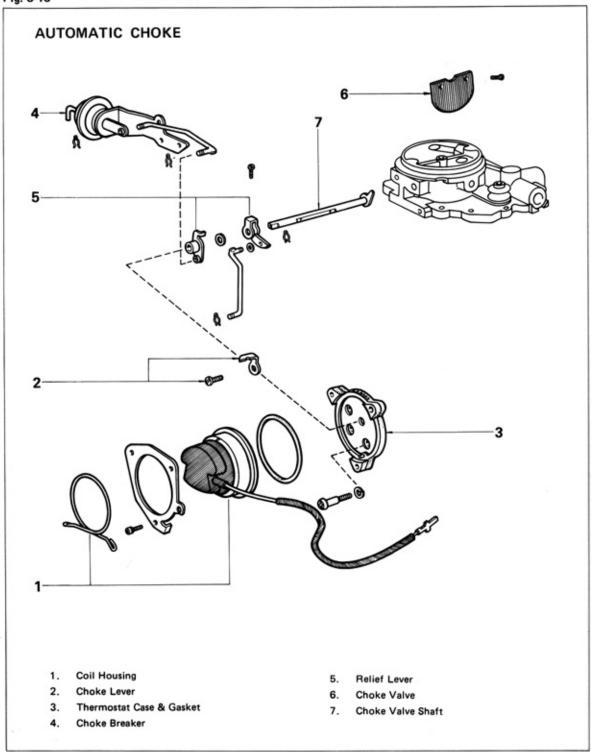


Check the power piston movement.

Choke System

Disassemble the parts in the numerical order shown in the figure.

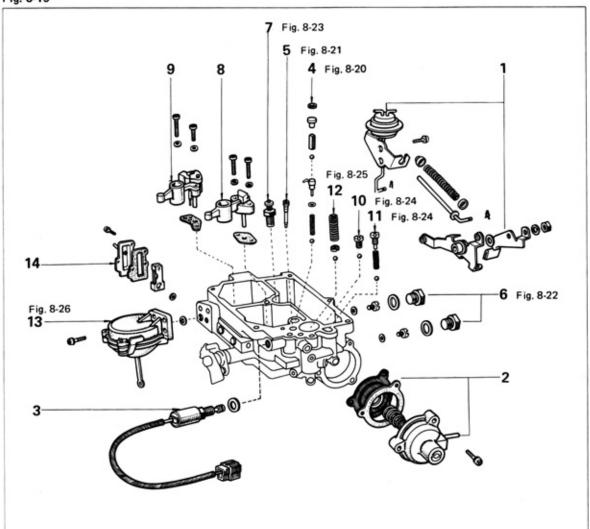
Fig. 8-18



Body

Disassemble the parts in the numerical order shown in the figure.

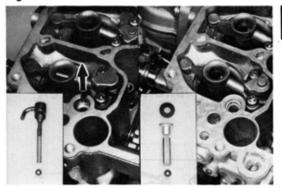
Fig. 8-19



- 1. Throttle Positioner
- 2. AAP Diaphragm
- 3. Fuel Cut Solenoid Valve
- 4. Pump Discharge Weight & Outlet Valve
- 5. Slow Jet
- 6. First & Second Main Jet
- 7. Power Valve

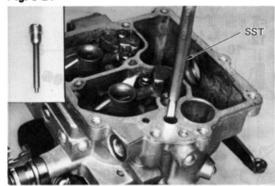
- 8. First Small Venturi
- 9. Second Small Venturi
- 10. AAP Inlet Valve
- 11. AAP Outlet Valve
- 12. Pump Inlet Valve
- 13. Second Throttle Valve Diaphragm
- 14. HIC Valve

Fig. 8-20



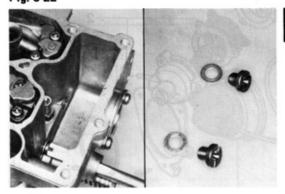
Arrange the acceleration pump nozzle, spring and pump discharge weight.

Fig. 8-21



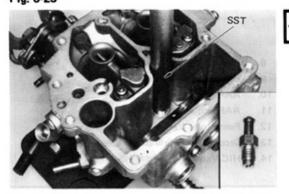
Remove the slow jet with SST. SST[09860-11011]

Fig. 8-22



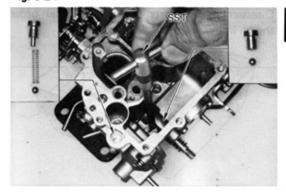
Remove the first and second main jets and gaskets.

Fig. 8-23



Remove the power valve with SST. SST[09860-11011]

Fig. 8-24



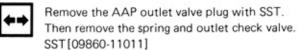
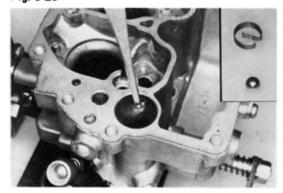
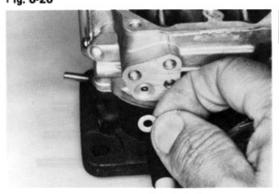


Fig. 8-25



Remove the retainer with a tweezers and then remove the inlet check ball.

Fig. 8-26



After removing the diaphragm housing, arrange the gasket.

Flange

Disassemble the parts in the numerical order shown in the figure.

Fig. 8-27

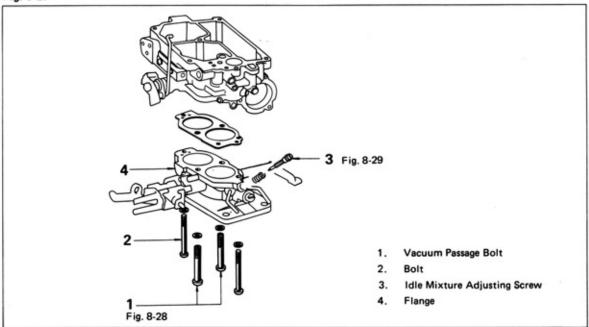
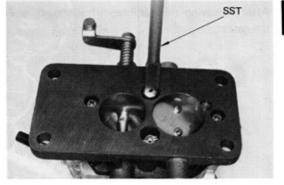


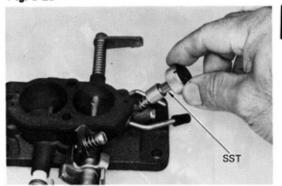
Fig. 8-28





Remove the two bolts with SST. SST[09860-11011]

Fig. 8-29

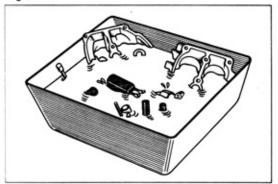




Remove the idle mixture adjusting screw with SST.

SST[09243-00010] or [09243-00020]

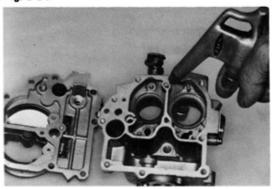
Fig. 8-30



INSPECTION

- Precaution -
- Before inspecting the parts, wash them thoroughly in gasoline.

Fig. 8-31





Using compressed air, blow all dirt and other foreign matter from the jets and similar parts, and from the fuel passages and apertures in the body.

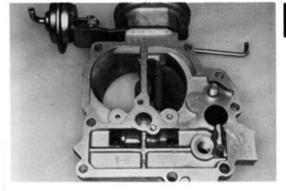
Fig. 8-32





Never clean the jets or orifices with wire or a drill. This could enlarge the openings and result in excessive fuel consumption.

Fig. 8-33



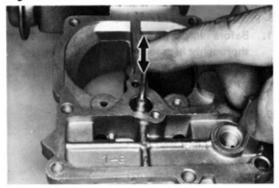


Inspect the following parts and replace any part damaged.

Air Horn Parts

 Air horn: Cracks, damaged threads, and wear on choke shaft bores.

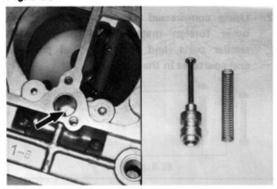
Fig. 8-34





Make sure that power piston moves smoothly.

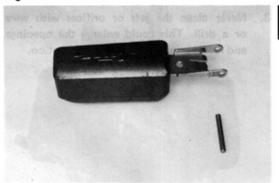
Fig. 8-35





Power piston: Damaged. Spring: Deformation and rust.

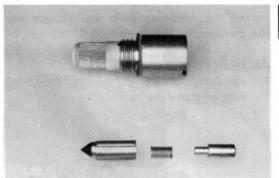
Fig. 8-36





4. Check float and pivot pin for wear or breaks.

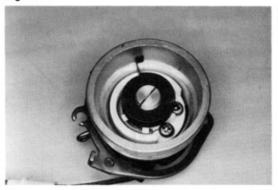
Fig. 8-37





- 5. Strainer: Rust, breaks.
- Needle valve surface.
- Needle valve seat.

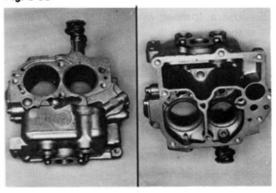
Fig. 8-38





- Choke valve: Deformation. Choke shaft worn, bent, or not fitting properly into the housing.
- Coil housing: Cracks, thermostatic bimetal coil deformed.

Fig. 8-39

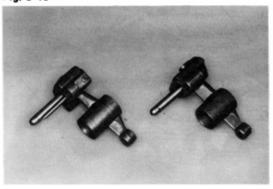




Body Parts

Body
 Cracks, scored mounting surfaces, damaged threads.

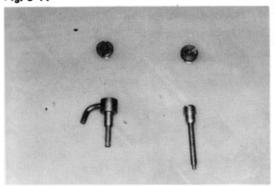
Fig. 8-40





Venturi Damaged or clogged.

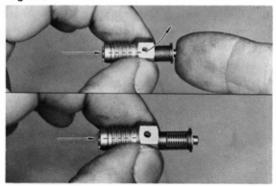
Fig. 8-41





Jets
 Damaged or clogged.
 Damaged contact surface or threads.
 Screwdriver slots.

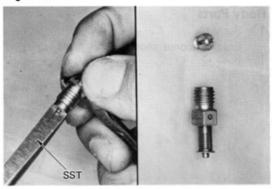
Fig. 8-42





Power valve
 Faulty opening and closing action.
 Clogged.
 Damaged contact surface or threads.

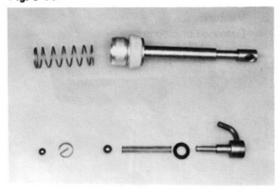
Fig. 8-43





 Use a spanner wrench and SST to remove the jet. SST [09860-11011]

Fig. 8-44

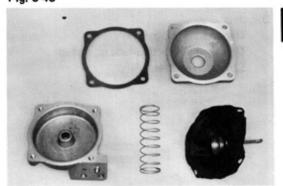




Acceleration pump
 Pump damping spring: Deformation, rust.

 Pump check ball: Damaged, rusted.
 Pump plunger; Wear on sliding surface, deformed or damaged leather.

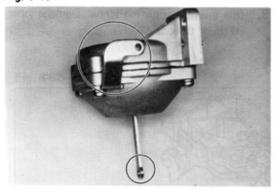
Fig. 8-45





 Secondary diaphragm Damaged

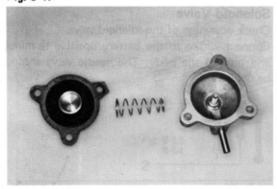
Fig. 8-46





8. Install the diaphragm as shown in the figure.

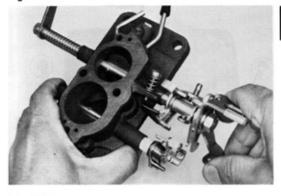
Fig. 8-47





Auxuliary acceleration pump Diaphragm damaged

Fig. 8-48

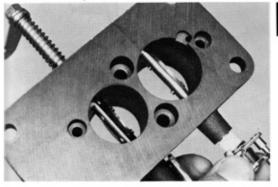




Flange Parts

 Flange: Cracks, injured mounting surfaces, damaged threads, wear at throttle shaft bearings.

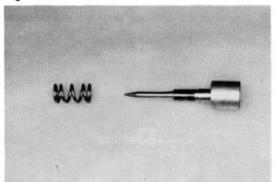
Fig. 8-49





Throttle valves: Worn or deformed valves. Wear, bending, twisting, or faulty movement inside housing of shaft.

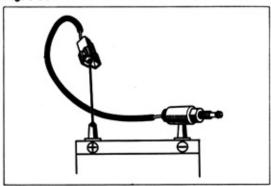
Fig. 8-50





Idle mixture adjusting screw: Damage tapered tip or threads.

Fig. 8-51





Solenoid Valve

Check operation of the solenoid valve.

Connect wiring to the battery opsitive terminal and ground the body. The needle valve should be pulled in.

ASSEMBLY

Flange

Assemble the parts in the numerical order shown in the figure.

Fig. 8-52

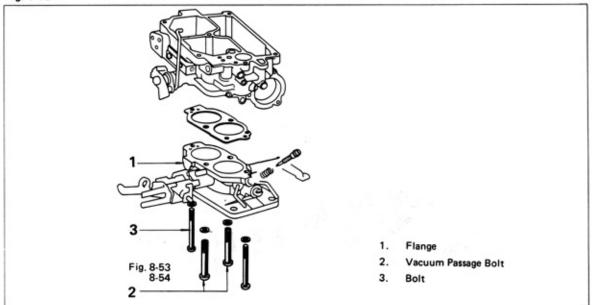
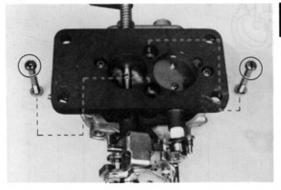


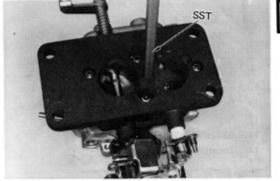
Fig. 8-53





Assemble the vacuum passage bolt in the position shown in the figure.

Fig. 8-54



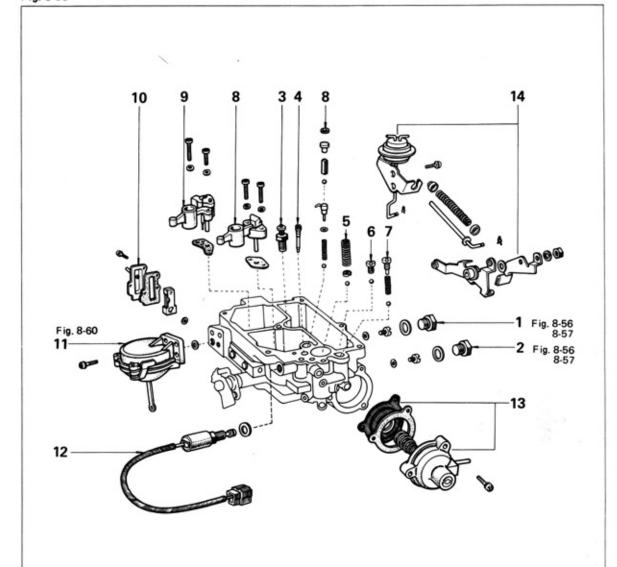


First finger tighten all bolts and then tighten them down.

Body

Assemble the parts in the numerical order shown in the figure.

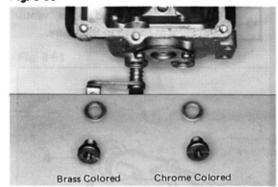
Fig. 8-55



- 1. Second Main Jet
- 2. First Main Jet
- 3. Power Valve
- Slow Jet
- 5. Pump Inlet Valve & Plunger Return Spring
- 6. AAP Inlet Valve
- APP Outlet Valve

- 8. Pump Discharge Weight & Outlet Valve
- 9. Second Small Venturi
- 10. First Small Venturi
- 11. Second Throttle Valve Diaphragm
- 12. Fuel Cut Solenoid Valve
- 13. AAP Diaphragm
- 14. Throttle Positioner

Fig. 8-56

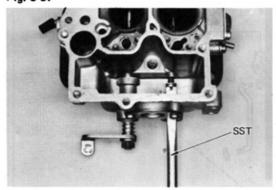




Install the main jets over gaskets.

First jet: Brass colored Second jet: Chrome colored

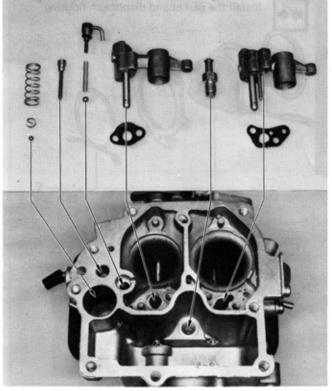
Fig. 8-57





Tighten the first and second main jets with SST. SST[09860-11011]

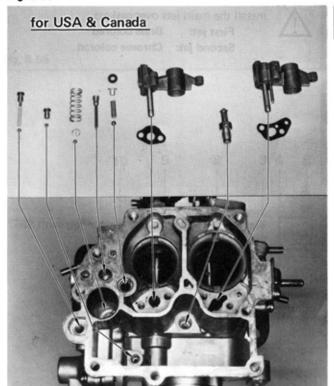
Fig. 8-58





Install the jets, air bleed, valve and plugs as shown in the figure.

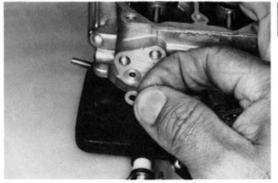
Fig. 8-59





Install the jets, bleed, valve, venturi and plugs as shown in the figure.

Fig. 8-60





Install the gasket and diaphragm housing.

Choke System

Assemble the parts in the numerical order shown in the figure.

Fig. 8-61

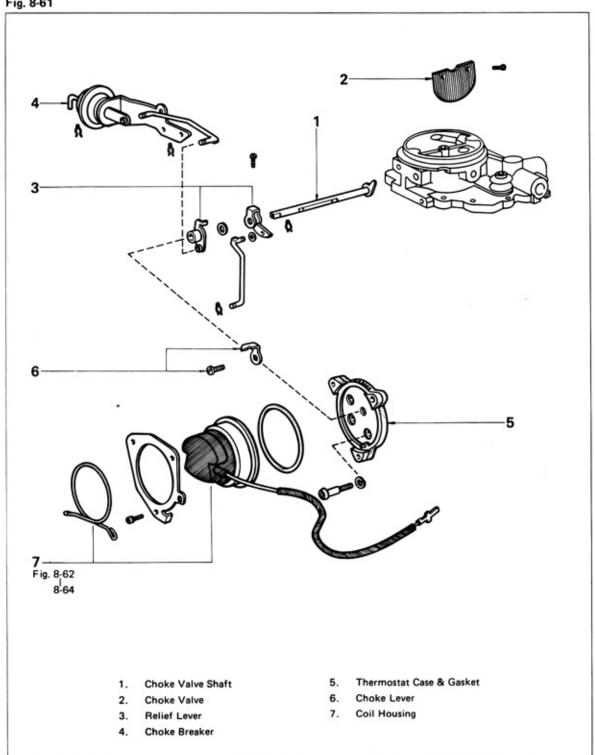
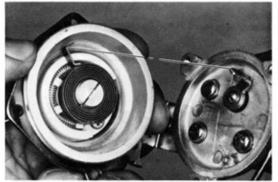


Fig. 8-62





Hook the lever to the bimetal spring.

Fig. 8-63





Align the case scale standard line against the housing scale line.

Fig. 8-64





Check the choke valve action.

Float

Assemble the parts in the numerical order shown in the figure.

Fig. 8-65

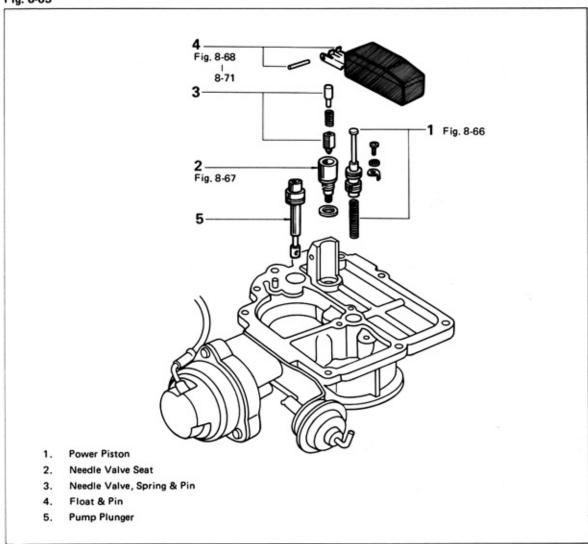
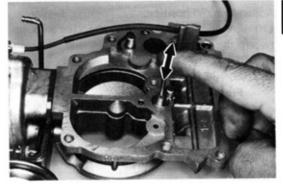


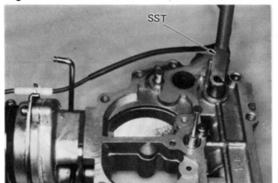
Fig. 8-66





After installing, insure that power piston moves smoothly.

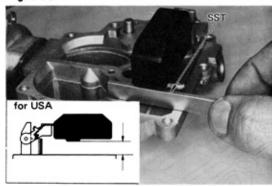
Fig. 8-67





Install the needle valve seat with SST. SST[09860-11011]

Fig. 8-68



 $\mathbf{F}_{\mathbf{m}}$

Adjust float level.

Allow the float to hang down by its own weight.

Then check the clearance between the float and air horn with SST.

SST[09240-00014]

Float upper level:

STD 3T 6.5 mm (0.26 in.) 3T-C 4.5 mm (0.18 in.) 2T & 2T-B 4.0 mm (0.16 in.)

- Note -

This measurement is always made without any gasket on the air horn.

Adjust by bending float lip as shown in the figure.

[for USA]

Adjust the clearance by bending at point (A) of the float as shown in the figure.

Fig. 8-69

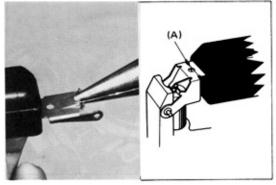
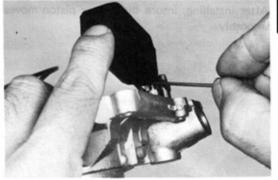


Fig. 8-70





Adjust lowered position.

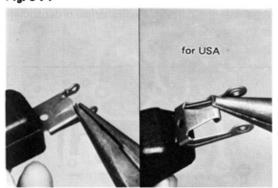
Lift up the float and check the clearance between the needle valve plunger and float lip with SST.

SST[09240-00020]

Float lower level:

STD 1.0 - 1.2 mm (0.04 - 0.05 in.)

Fig. 8-71



Adjust by bending the float lip as shown in the figure.

Body & Air Horn

Assemble the parts in the numerical order shown in the figure.

Fig. 8-72

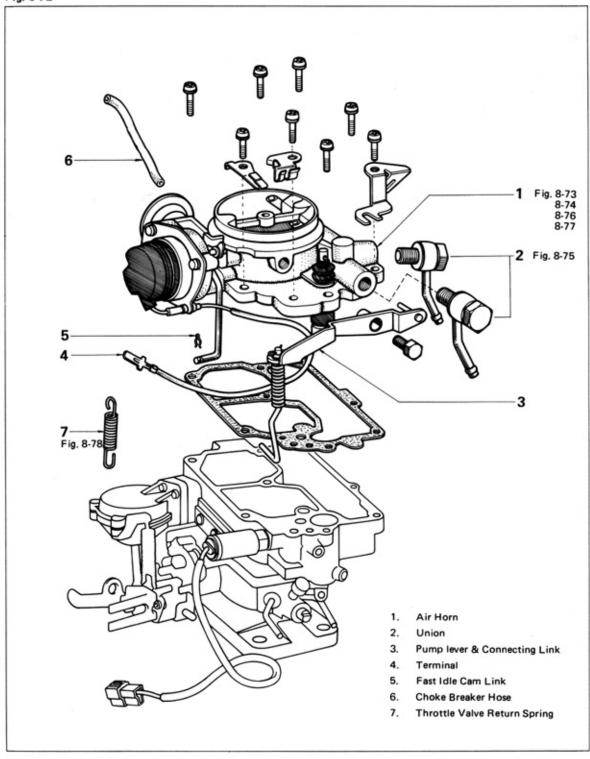
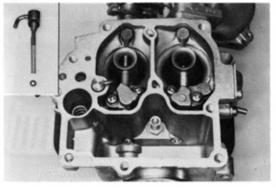


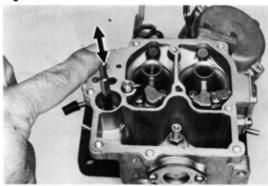
Fig. 8-73





Before assembling the air horn, insure that the pump jet is properly assembled.

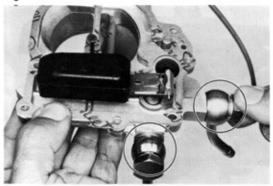
Fig. 8-74





Before assembling the air horn, insure that pump plunger moves smoothly.

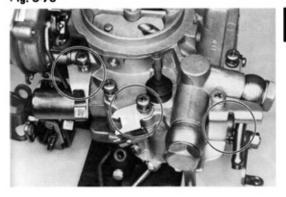
Fig. 8-75





Temporarily install the fuel unions.

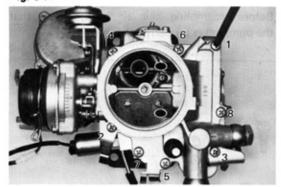
Fig. 8-76





Install the clamps in the position shown in the figure.

Fig. 8-77





Tighten the air horn set screws at little at a time in diagonal order.

Fig. 8-78





After assembling, make sure that each link moves smoothly.

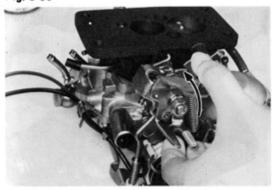
Fig. 8-79



ADJUSTMENT

Make adjustments with SST. SST[09240-00014] [09240-00020]

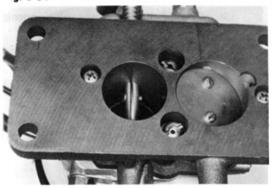
Fig. 8-80





- 1. First throttle valve opening.
 - (1) Fully open the first throttle valve.

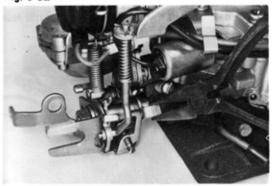
Fig. 8-81





- (2) Check the first throttle valve opening angle.
 - Opening angle: 90°

Fig. 8-82



(3) Adjust by bending the throttle lever stopper.

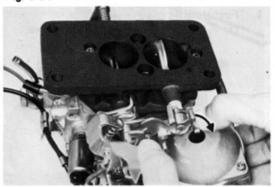
Fig. 8-83





- Second throttle valve opening.
 - (1) Fully open the first throttle valve.

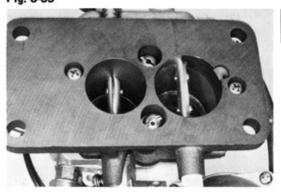
Fig. 8-84





Fully open the second throttle valve. lever.

Fig. 8-85





(3) Check the throttle valve opening. angle.

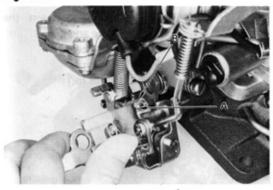
Opening angle: 80°

Fig. 8-86



(4) Adjust by bending the throttle lever. stopper.

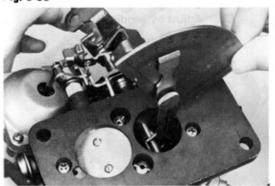
Fig. 8-87





- 3. Secondary touch angle.
 - Open the first throttle valve until the throttle valve lever (A) part touch (B) part.

Fig. 8-88





(2) At this time, check the first throttle valve opening angle.

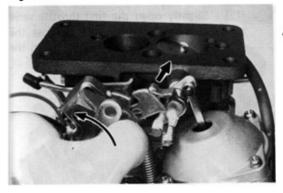
Secondary touch angle: $57^{\circ} - 61^{\circ}$

Fig. 8-89



(3) Adjust by bending (A) part.

Fig. 8-90'





- 4. Kick up
 - Open the first throttle valve until the kick arm slightly opens the second throttle valve.

Fig. 8-91





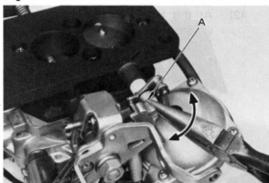
(2) Check the clearance between the second throttle valve and body.

Kick up clearance:

0.2 mm

(0.008 in.)

Fig. 8-92



(3) Adjust by bending (A) part.

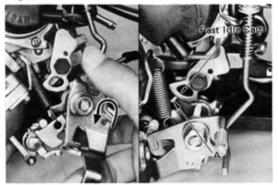
Fig. 8-93





- 5-1. Fast idle (automatic choke only)
 - Fully close the choke valve by turning the coil housing.

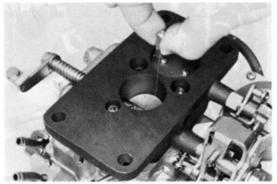
Fig. 8-94





(2) Slightly open the first throttle valve and then close it. Insure that the throttle lever (A) part hooks to the fast idle cam.

Fig. 8-95





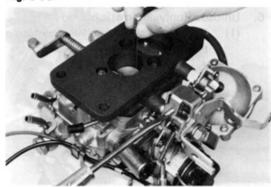
(3) Check the clearance between the first throttle valve and bore.

Fast idle clearance:

0.81 mm

(0.032 in.)

Fig. 8-96



(4) Adjust by turning the fast idle adjusting screw.

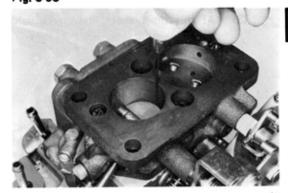
Fig. 8-97





- 5-2. Fast idle (manual choke only)
 - Fully close the choke valve by turning the choke shaft lever.

Fig. 8-98



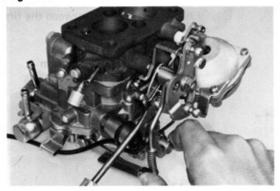


(2) Check the clearance between the first throttle valve and bore.

Fast idle clearance:

1.01 mm (0.040 in.)

Fig. 8-99



(3) Adjust by turning the fast idle adjusting screw.

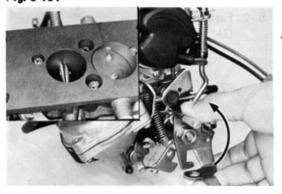
Fig. 8-100



A

- 6. Unloader (only automatic hcoke)
 - Fully close the choke valve by turning the coil housing.

Fig. 8-101





(2) Fully open the first throttle valve.

Fig. 8-102





(3) At this time, check the choke valve opening angle.

Unloader angle: 47°

Fig. 8-103



(4) Adjust by bending (A) part.

Fig. 8-104



7. (

- 7. Choke breaker (automatic choke only)
 - Fully close the choke valve by turning the coil housing.

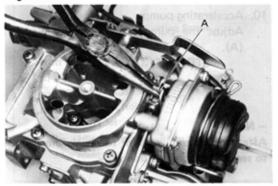
Fig. 8-105





- (2) Connect a hose to the diaphragm and suck on the hose with your mouth.
- (3) At this time, check the clearance between the choke valve and bore,

Fig. 8-106



(4) Adjust by bending (A) part.

Fig. 8-107

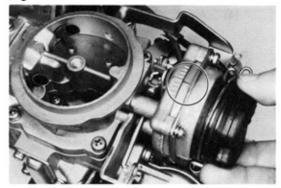


Fig. 8-108





(2) Depending on vehicle operating conditions, turn the coil housing and adjust the engine starting mixture.

Set the coil housing scale mark so that it will be aligned with the center

line of the thermostat case.

The choke valve becomes fully closed when the atmospheric temperature reaches 25°C (77°F).

If too rich Turn clockwise.
If too lean Turn counterclockwise.

Fig. 8-109





 Idle mixture adjusting screw
 Tighten the idle mixture adjusting screw and then unscrew it about three turns.

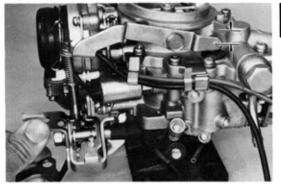
STD (Reference only):

Returned about 3 turns from full closed.

- Note -

Be careful not to damage the screw tip by tightening the screw too tightly.

Fig. 8-110





10. Accelerating pump

8. Automatic choke

(1)

- Note -

Adjust the pump stroke by vending part (A).

STD: 2T, 3T & 3T-C 5.0 mm

(0.20 in.)

2T-B 3.0 mm

(0.12 in.)

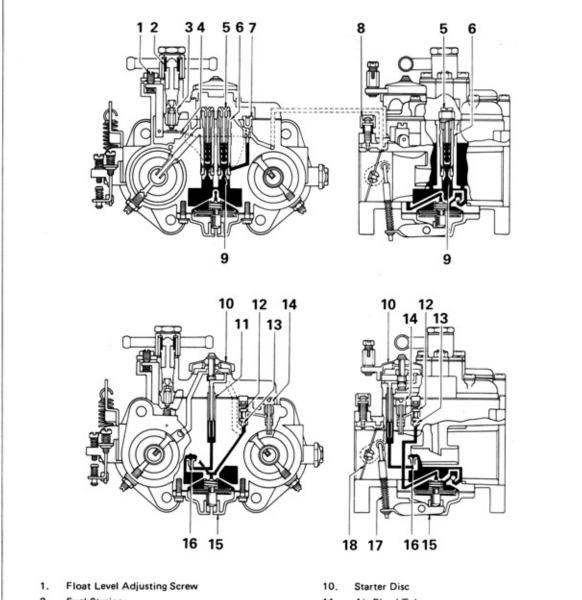
- Note -

After adjustment, be sure to check the linkage to see that it operates smoothly.

SOLEX CARBURETOR

CARBURETOR CIRCUIT

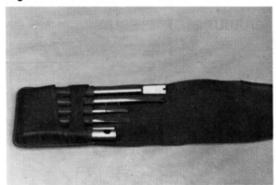
Fig 8-114



- 2. Fuel Strainer
- 3. Needle Valve
- 4. Float
- 5. Main Air Bleet Jet
- 6. Main Jet Holder
- 7. Slow Jet
- 8. Idle Mixture Adjusting Screw
- 9. Main Jet

- 11. Air Bleed Tube
- 12. Pump Discharge Weight
- 13. Pump Outlet Valve
- 14. Pump Jet
- 15. Accelerating Pump Diaphragm
- 16. Starter Jet
- 17. Pump Connecting Rod
- 18. Throttle Valve

Fig. 8-115





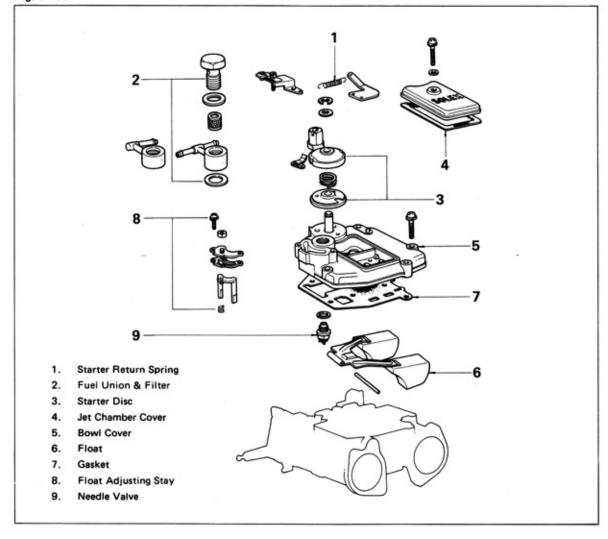
Use SST for carburetor servicing. SST[09860-11011]

DISASSEMBLY

Bowl Cover

Disassemble the parts in the numerical order shown in the figure.

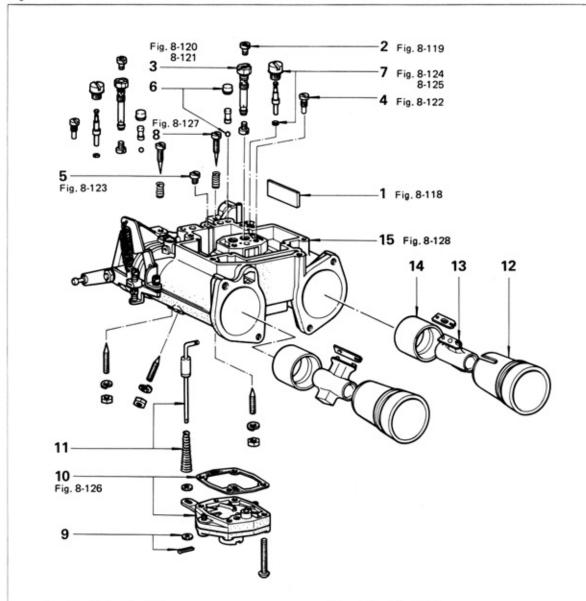
Fig. 8-116



Body

Disassemble the parts in the numerical order shown in the figure.

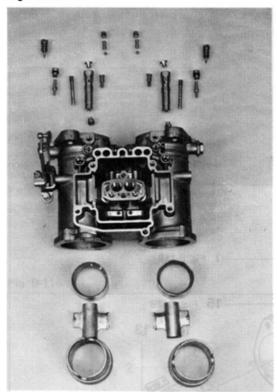
Fig. 8-117



- 1. Float Chamber Plate
- 2. Main Air Bleed Jet
- 3. Main Jet Holder
- 4. Slow Jet
- 5. Starter Jet
- 6. Pump Discharge Weight & Check Valve
- 7. Pump Nozzle
- 8. Idle Mixture Screw

- 9. Cotter Pin & Washer
- 10. Accelerating Pump
- 11. Spring & Pump Rod
- 12. Sleeve
- 13. Small Venturi
- 14. Large Venturi
- 15. Body

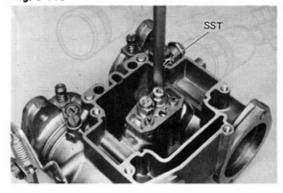
Fig. 8-118



Λ

Arrange the parts for the right and left sides in respective order.

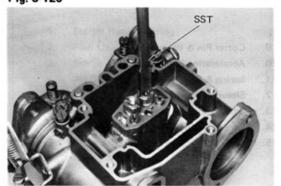
Fig. 8-119





Remove the main air bleed jet with SST. SST[09860-11011]

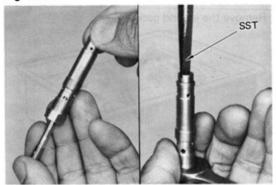
Fig. 8-120





Remove the main jet holder with SST. SST[09860-11011]

Fig. 8-121



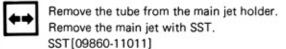
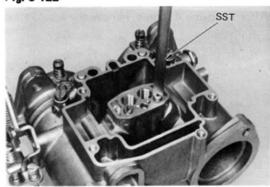
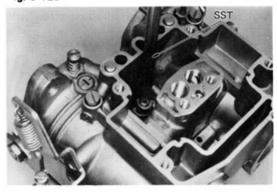


Fig. 8-122



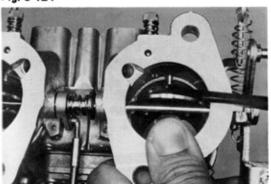
Remove the slow jet with SST. SST[09860-11011]

Fig. 8-123



Remove the starter jet with SST. SST[09860-11011]

Fig. 8-124



If the starter jet is difficult to remove, push up from the bottom with a screw driver.

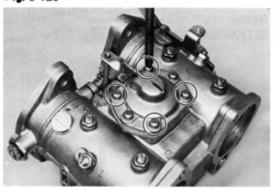
Fig. 8-125





Remove the jet and gasket.

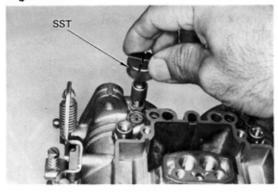
Fig. 8-126





After removing 4 screws, remove the accelerating pump.

Fig. 8-127





Remove the idle mixture adjusting screw with SST.

SST[09243-00010] or [09243-00020]

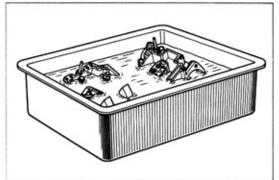
Fig. 8-128





Do not remove the screw.

Fig. 8-129

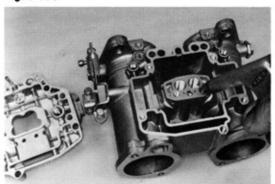


INSPECTION



- Precaution –
- Before inspecting the parts, wash them thoroughly in gasoline.

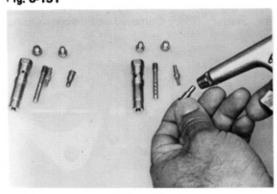
Fig. 8-130





Using compressed air, blow all dirt and other foreign matter from the jets and similar parts, and from the fuel passages and apertures in the body.

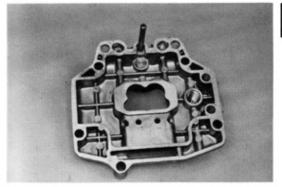
Fig. 8-131





Never clean the jets or orifices with wire or a drill. This could enlarge the openings and result in excessive fuel consumption.

Fig. 8-132



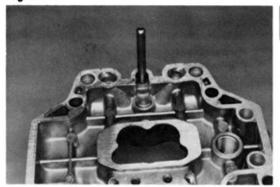


Inspect the following parts and replace any part damaged.

Bowl Cover Parts

1. Bowl cover: Crakcs, damaged threads.

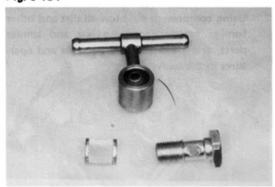
Fig. 8-133





2. Starter pipe: Damaged and/or clogged.

Fig. 8-134





3. Filter: Clogged, rusted, or damaged.

- Note -

New gasket must always be used whenever the union is removed.

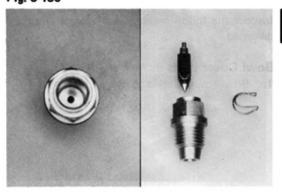
Fig. 8-135





Starter disc: Damaged or worn sliding surface.

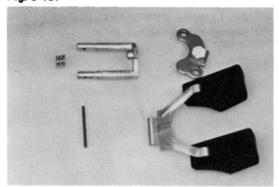
Fig. 8-136





5. Needle valve: Contacting valve seat.

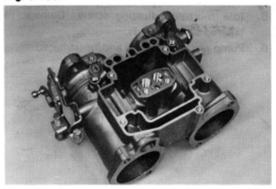
Fig. 8-137





Float: Deformed, wear in float lever pin holes, bent float arms.

Fig. 8-138

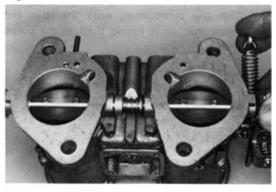




Body Parts

 Body: Cracks, damaged mounting surfaces and threads, wear on throttle shaft bearings, and carbon adherence.

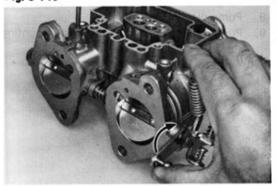
Fig. 8-139





Bore: Wear on the throttle valve contacting surface.

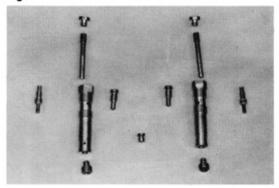
Fig. 8-140





3. Throttle valve movement.

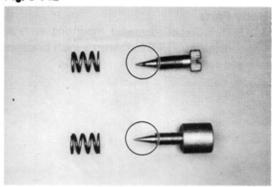
Fig. 8-141





 Jet: Clogging, damage to contacting surface, threads and screwdriver slots.

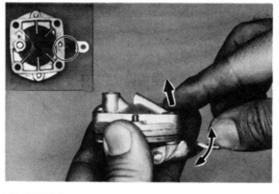
Fig. 8-142





- Idle mixture adjusting screw: Damage to tapered tip or threads.
- 6. Pump nozzle: Clogged and/or damaged.

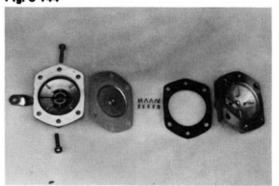
Fig. 8-143





With the pump level, work the lever and insure that air is forced through the outlet hole.

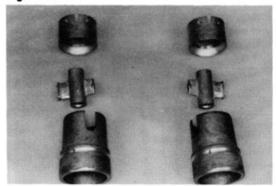
Fig. 8-144





- 8. Pump diaphragm: Damaged.
- Pump body: Cracks, damaged mounting surfaces.

Fig. 8-145



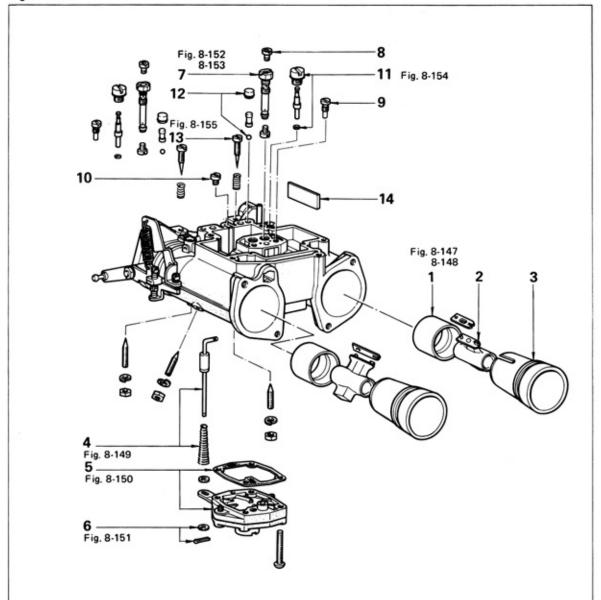


Venturi
 Damaged
 Small venturi
 Damaged or clogged

Body

Assemble the parts in the numerical order shown in the figure.

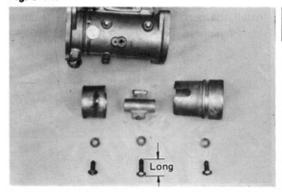
Fig. 8-146



- 1. Large Venturi
- 2. Small Venturi
- 3. Sleeve
- 4. Pump Connecting Rod & Spring
- 5. Accelerating Pump Diaphragm
- Cotter Pin & Washer
- 7. Main Jet Holder

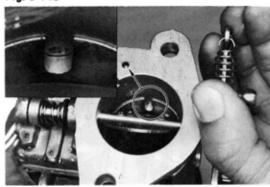
- 8. Main Air Bleed Jet
- 9. Slow Jet
- 10. Starter Jet
- 11. Pump Nozzle
- 12. Pump Discharge Weight & Check Valve
- 13. Mixture Adjusting Screw
- 14. Float Chamber Plate

Fig. 8-147



Assemble the small venturi with the long screw.

Fig. 8-148



Install the venturi with the accelerator pump nozzle hole in the center of the venturi slit.

Fig. 8-149



Install the spring in the direction shown in the figure.

Fig. 8-150



Install the gasket as shown in the figure.

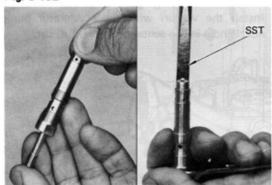
Fig. 8-151





Install the cotter pin in the third hole from the tip of the pump rod.

Fig. 8-152

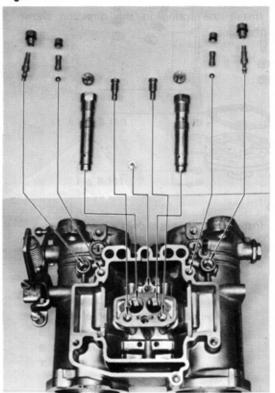




Before installing the main jet holder, assemble the sleeve and main jet into the holder with SST.

SST[09860-11011]

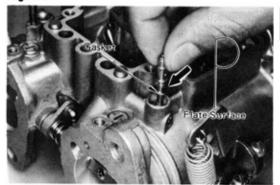
Fig. 8-153





Install the jets, air bleeds, valves and plugs as shown in the figure.

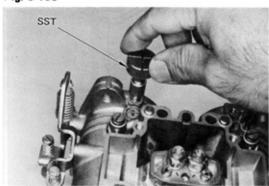
Fig. 8-154





Install the accelerator nozzle with the flat surface facing the intake manifold and with a gasket.

Fig. 8-155





Screw out 1-1/2 turns from the fully closed position.

- Note -

Take care not to mistake the left and right sides.

Bowl Cover

Assemble the parts in the numerical order shown in the figure.

Fig. 8-156

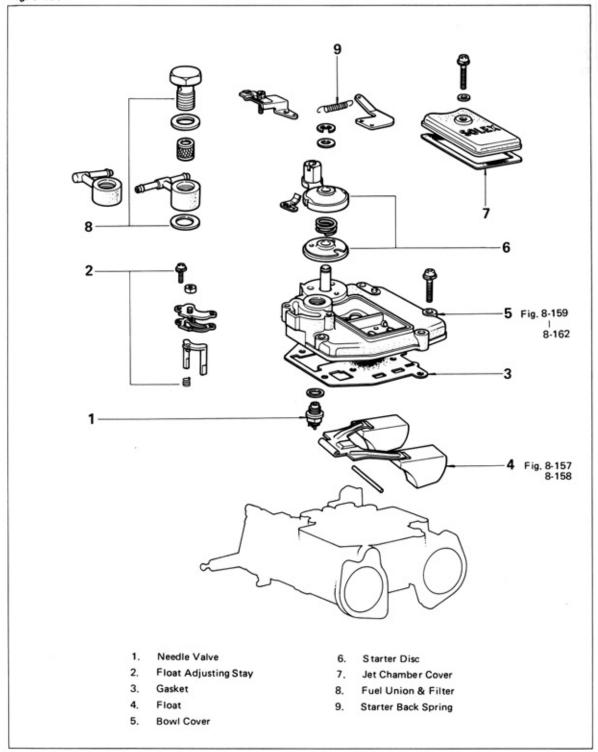
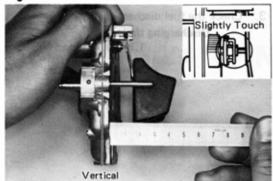


Fig. 8-157

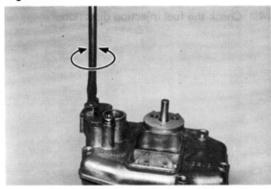




Measure the float position.

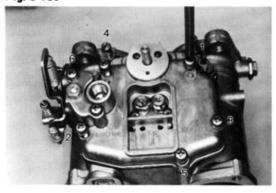
It should be about 16 mm (0.6 in.) from bowl cover lower surface.

Fig. 8-158



Adjust the float position as shown in the figure, if necessary.

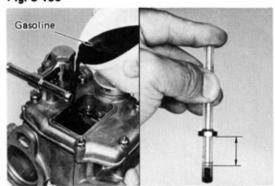
Fig. 8-159





Tighten the screws a little at a time and in diagonal order.

Fig. 8-160



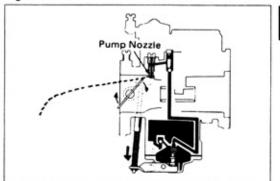
After assembling, check the acceleration pump

- Remove the bowl cover.
- Pour gasoline into the carburetor up to the correct level.

Fuel level: 20 - 21 mm

(0.79 - 0.83 in.)

Fig. 8-161

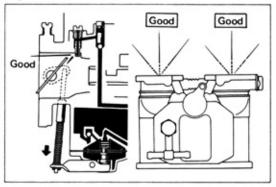




Check the fuel discharging time.Discharging time:

1.1 - 1.7 second

Fig. 8-162





4. Check the fuel injection direction.