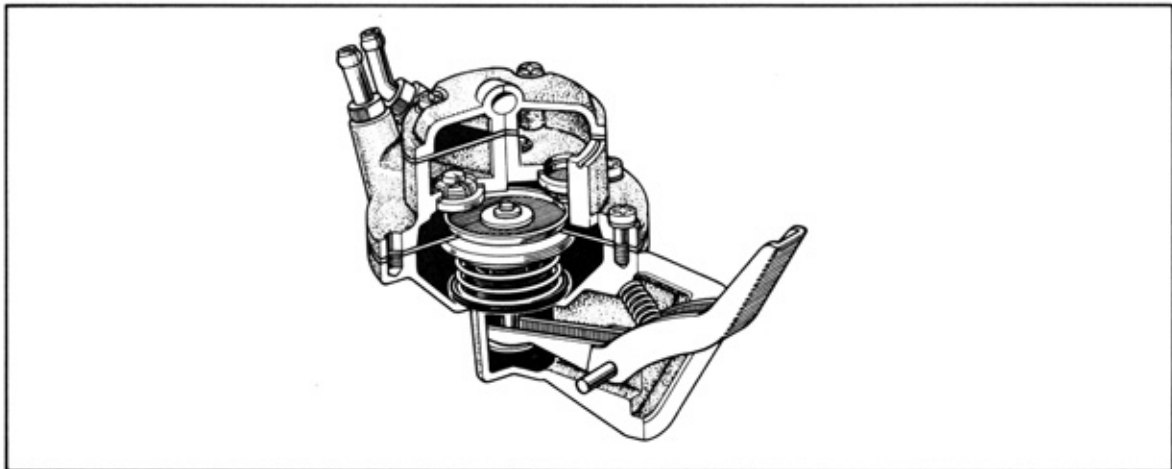


FUEL SYSTEM

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FUEL PUMP

Fig. 6-1



DISASSEMBLY

Disassemble in numerical order.

Fig. 6-2

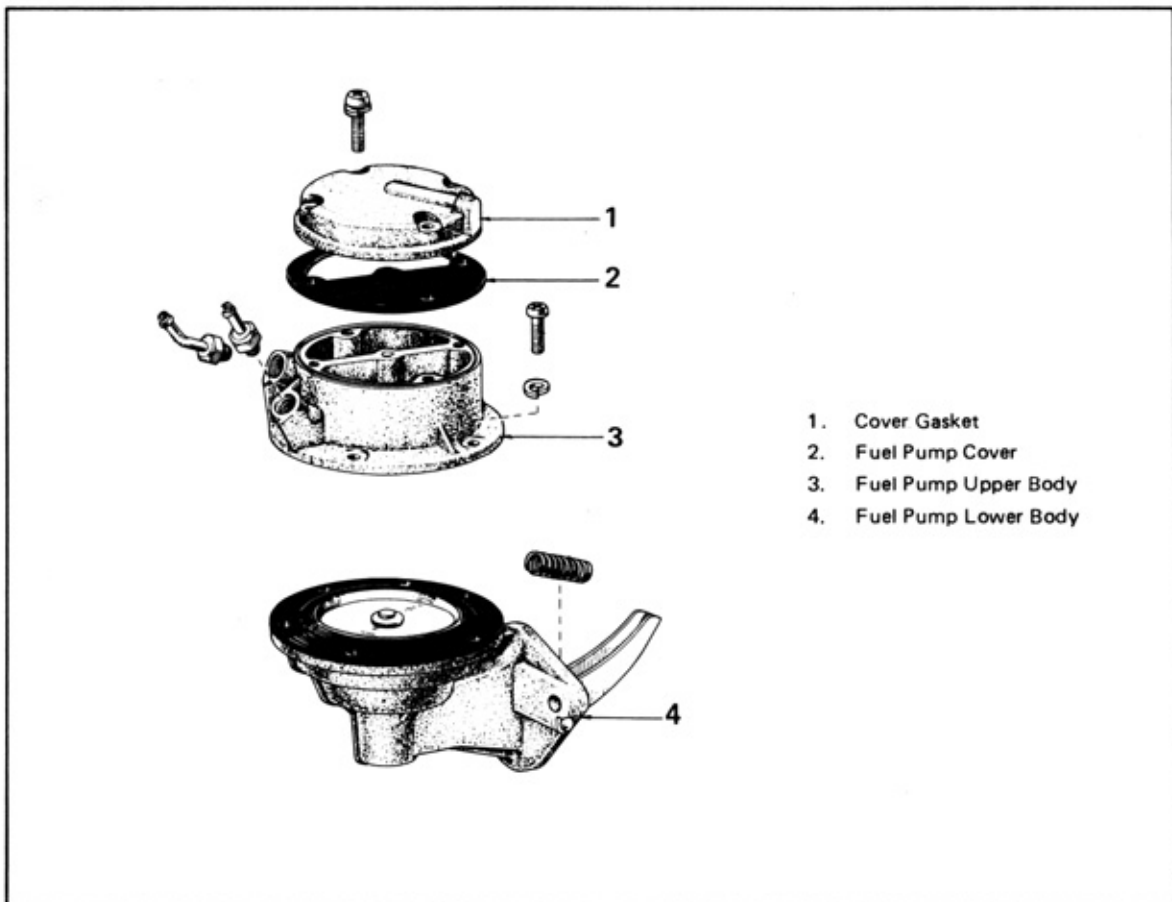
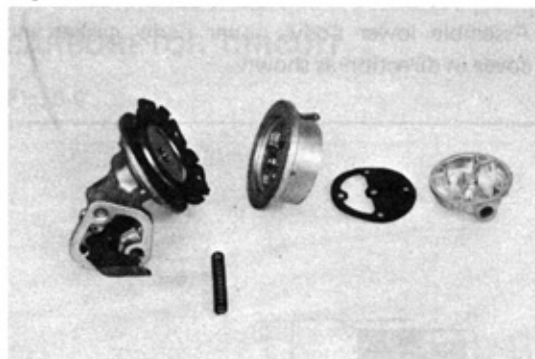


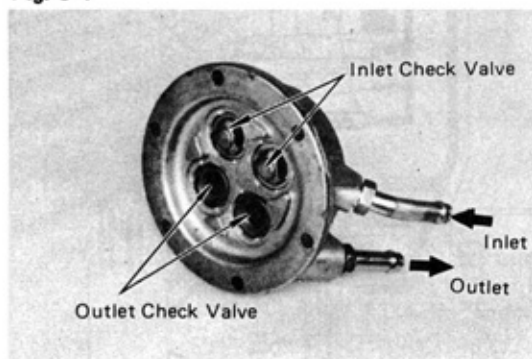
Fig. 6-3

**INSPECTION**

Wash the part, blow air through the fuel passages, and inspect on the following points, replacing any part found defective.

1. Pump cover for cracks in body and damaged threads.
2. Diaphragm for tear and other damages.
3. Diaphragm spring for loss of tension.
4. Rocker arm and rocker arm link for wear and damage.

Fig. 6-4



5. Valve for defective operation.

ASSEMBLY

Assemble in numerical order.

Fig. 6-5

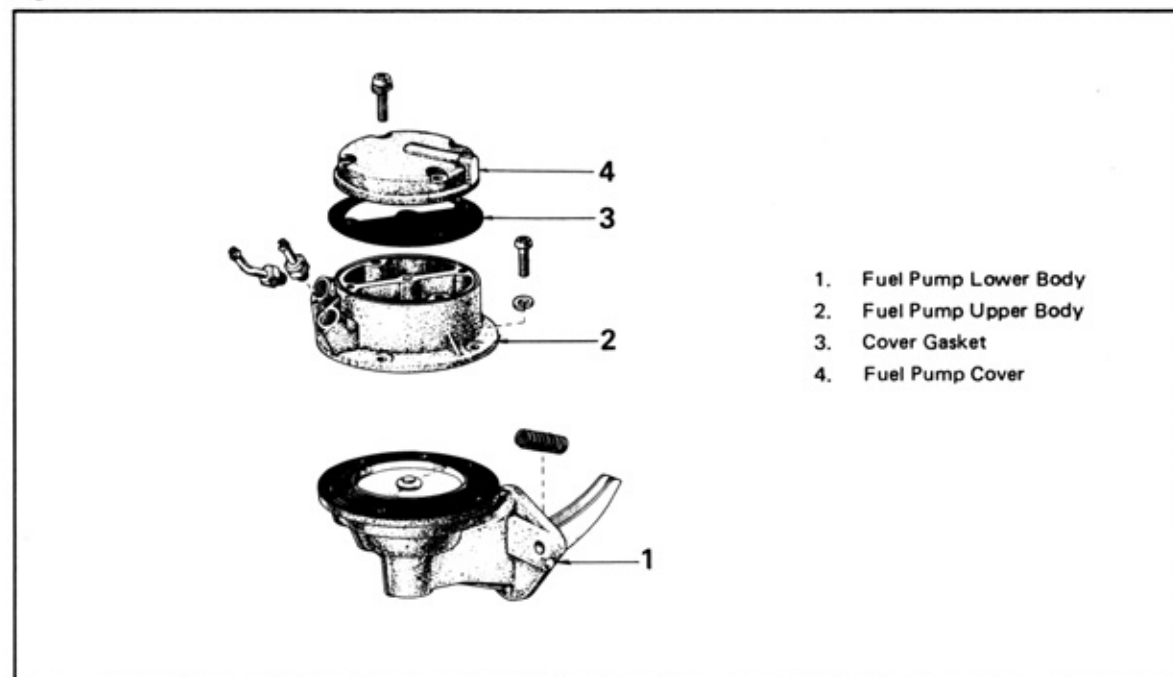
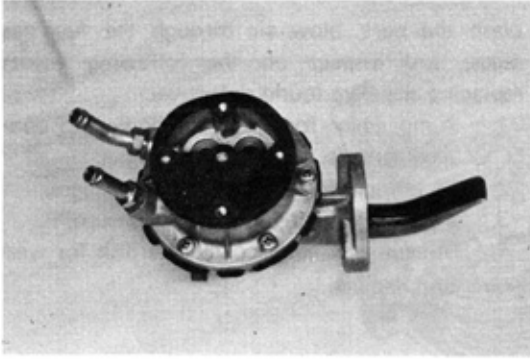


Fig. 6-6



Assemble lower body, upper body, gasket and cover in direction as shown.

Fig. 6-7

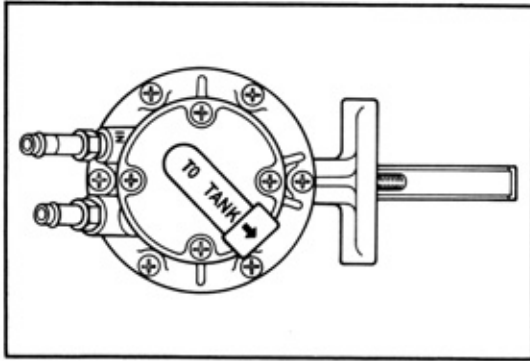
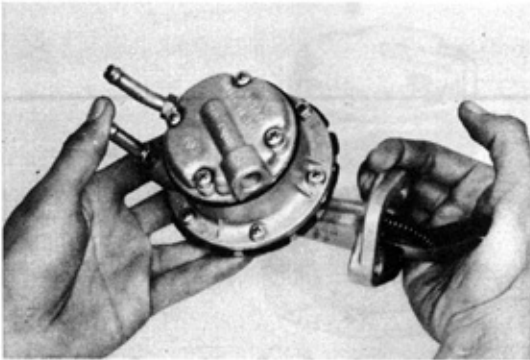


Fig. 6-8

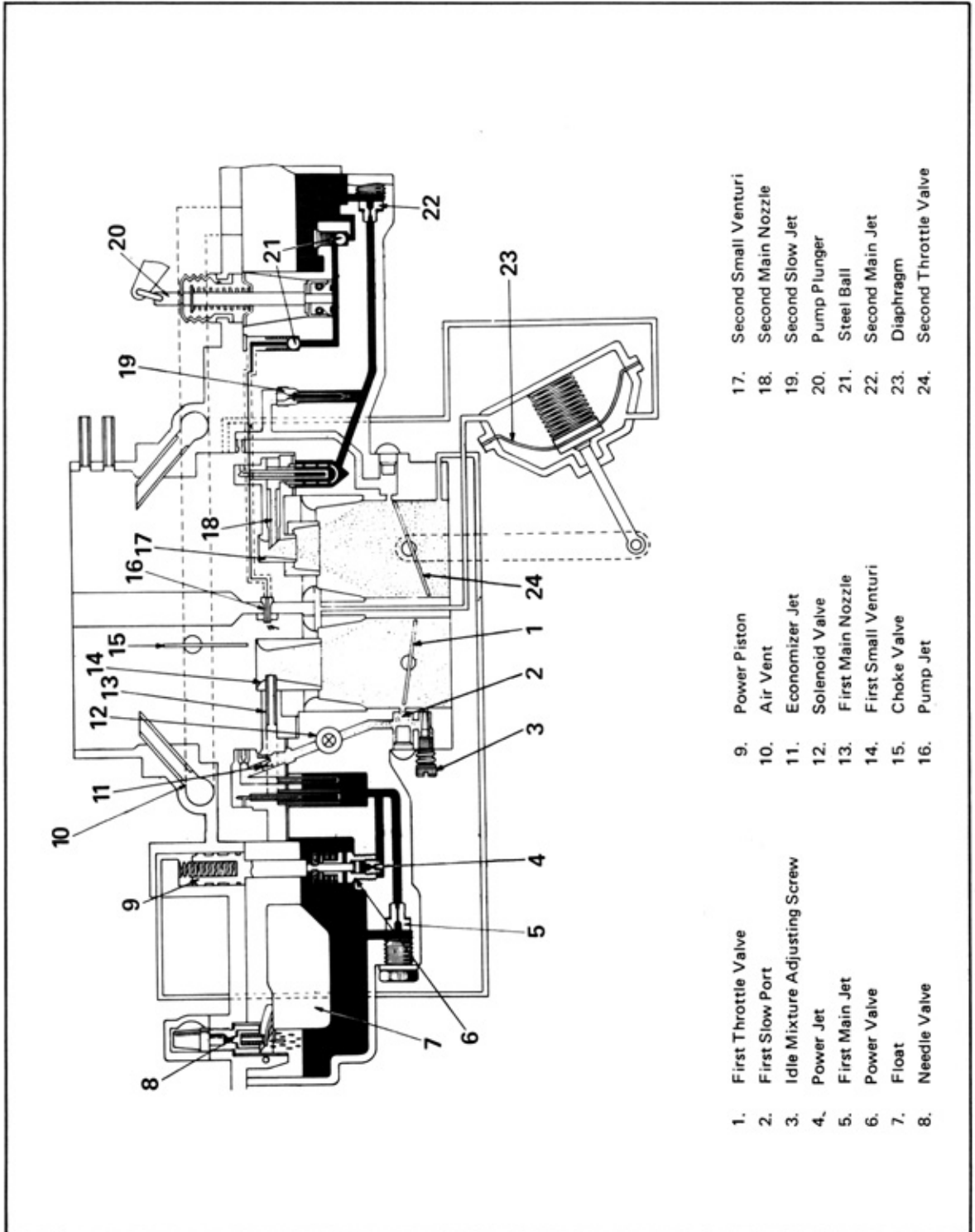


After completing assembly, move the rocker arm by hand to verify that the pump operates properly.

CARBURETOR

CARBURETOR CIRCUIT

Fig. 6-9



- | | | |
|---------------------------------|-------------------------|---------------------------|
| 1. First Throttle Valve | 9. Power Piston | 17. Second Small Venturi |
| 2. First Slow Port | 10. Air Vent | 18. Second Main Nozzle |
| 3. Idle Mixture Adjusting Screw | 11. Economizer Jet | 19. Second Slow Jet |
| 4. Power Jet | 12. Solenoid Valve | 20. Pump Plunger |
| 5. First Main Jet | 13. First Main Nozzle | 21. Steel Ball |
| 6. Power Valve | 14. First Small Venturi | 22. Second Main Jet |
| 7. Float | 15. Choke Valve | 23. Diaphragm |
| 8. Needle Valve | 16. Pump Jet | 24. Second Throttle Valve |

DISASSEMBLY

Air Horn

Disassemble in numerical order.

Fig. 6-10

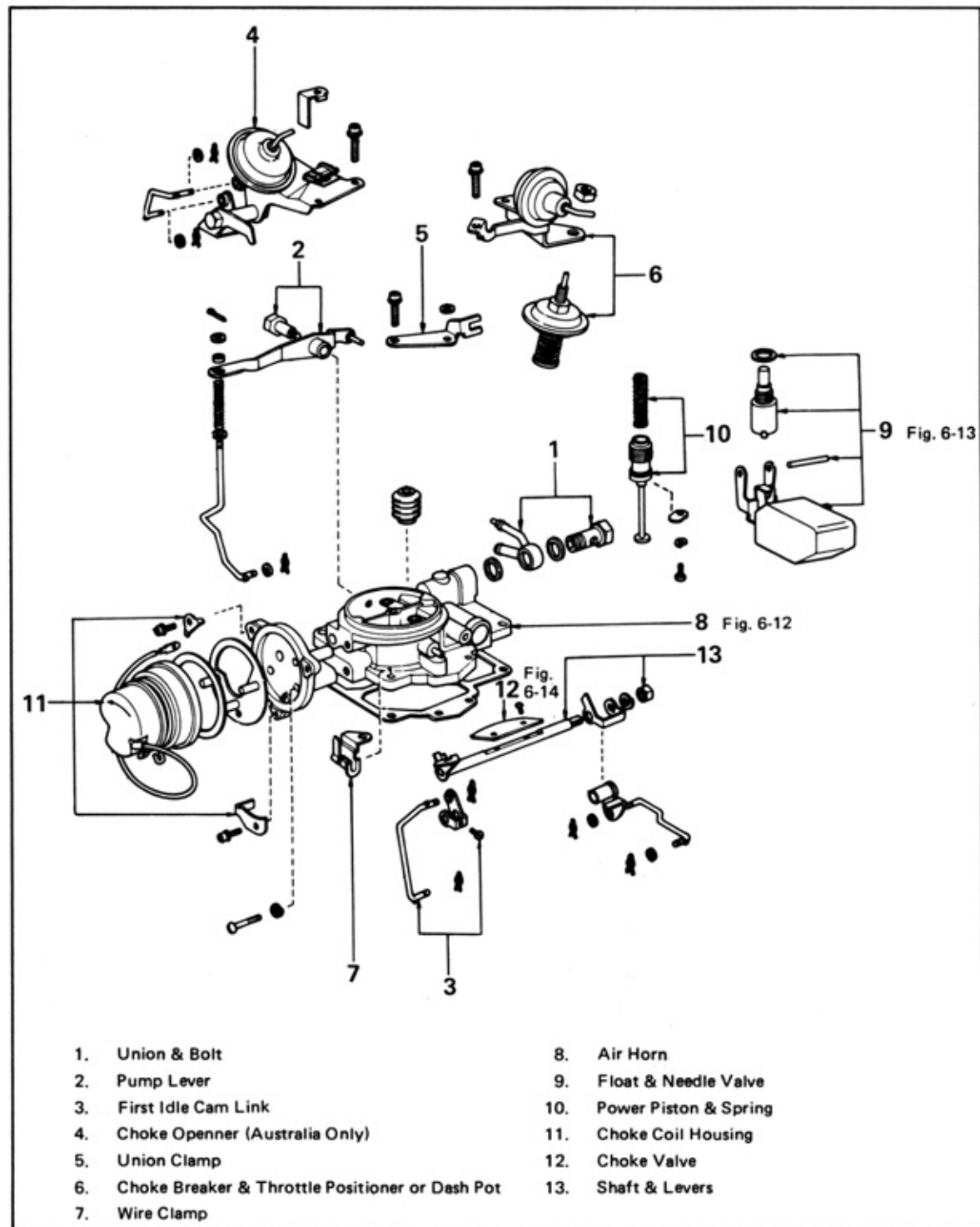
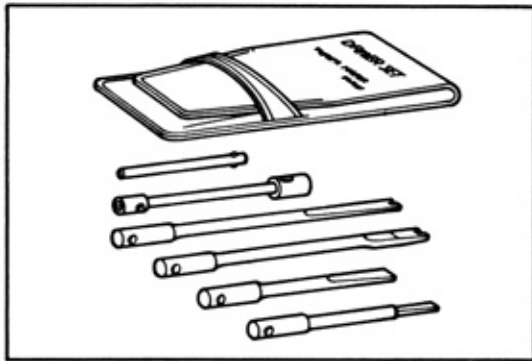


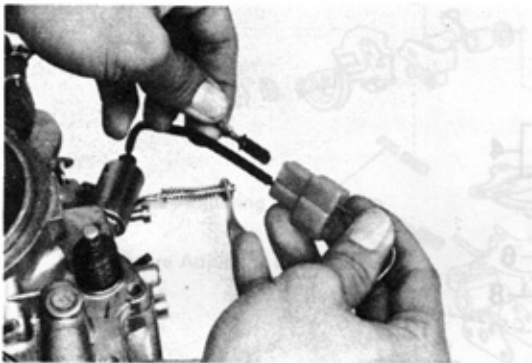
Fig. 6-11



For Carburetor service you will need:

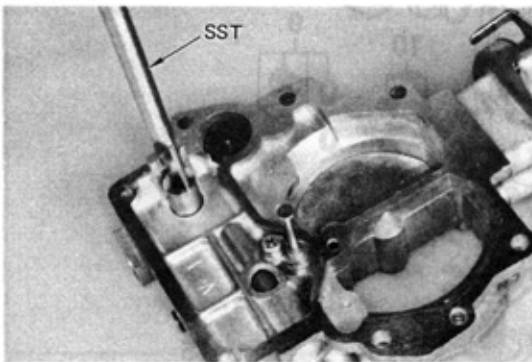
1. Carburetor driver set SST [09860-11011]
2. Parts trays to keep all parts in order.

Fig. 6-12



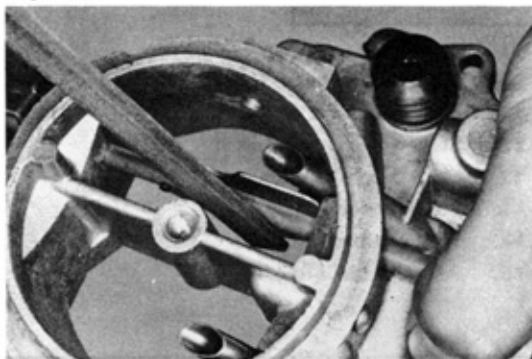
Bend terminal lugs and pull terminal off.

Fig. 6-13



Remove the valve seat with SST [09860-11011] and using care not to damage the valve seat.

Fig. 6-14



File off the peened ends of the choke valve set screws and take off the valve.

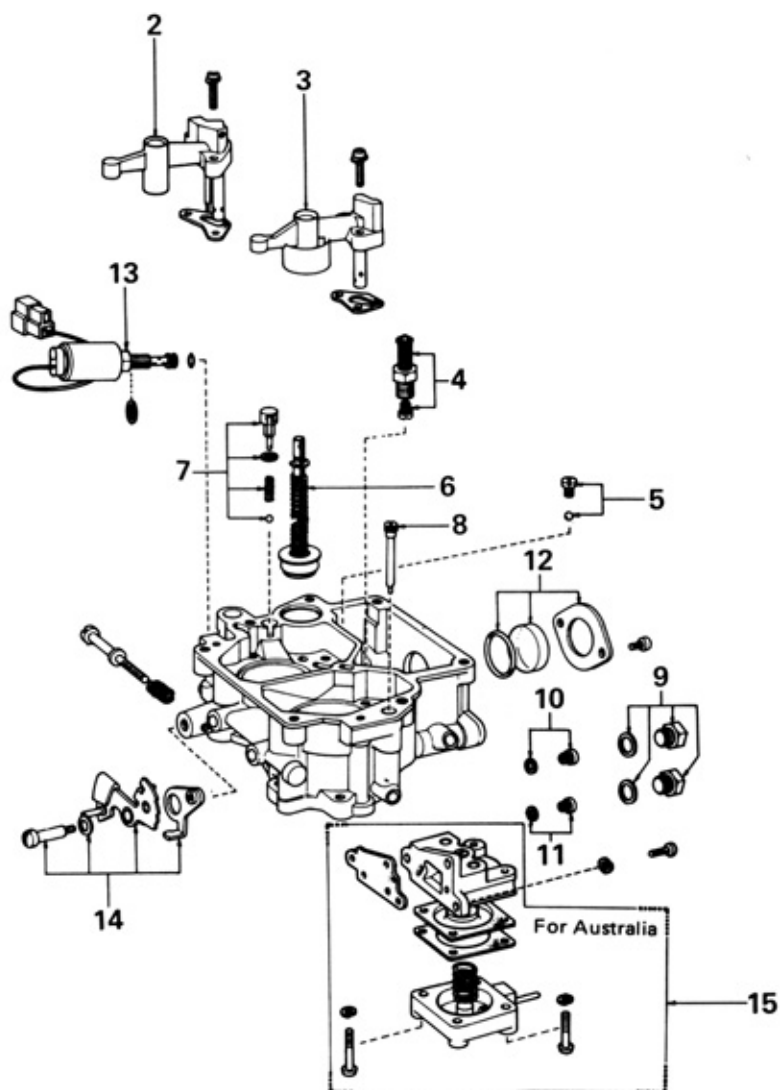
Body

Disassemble in numerical order.

– Note –

Using SST [09860-11011], remove the power valve and jets.

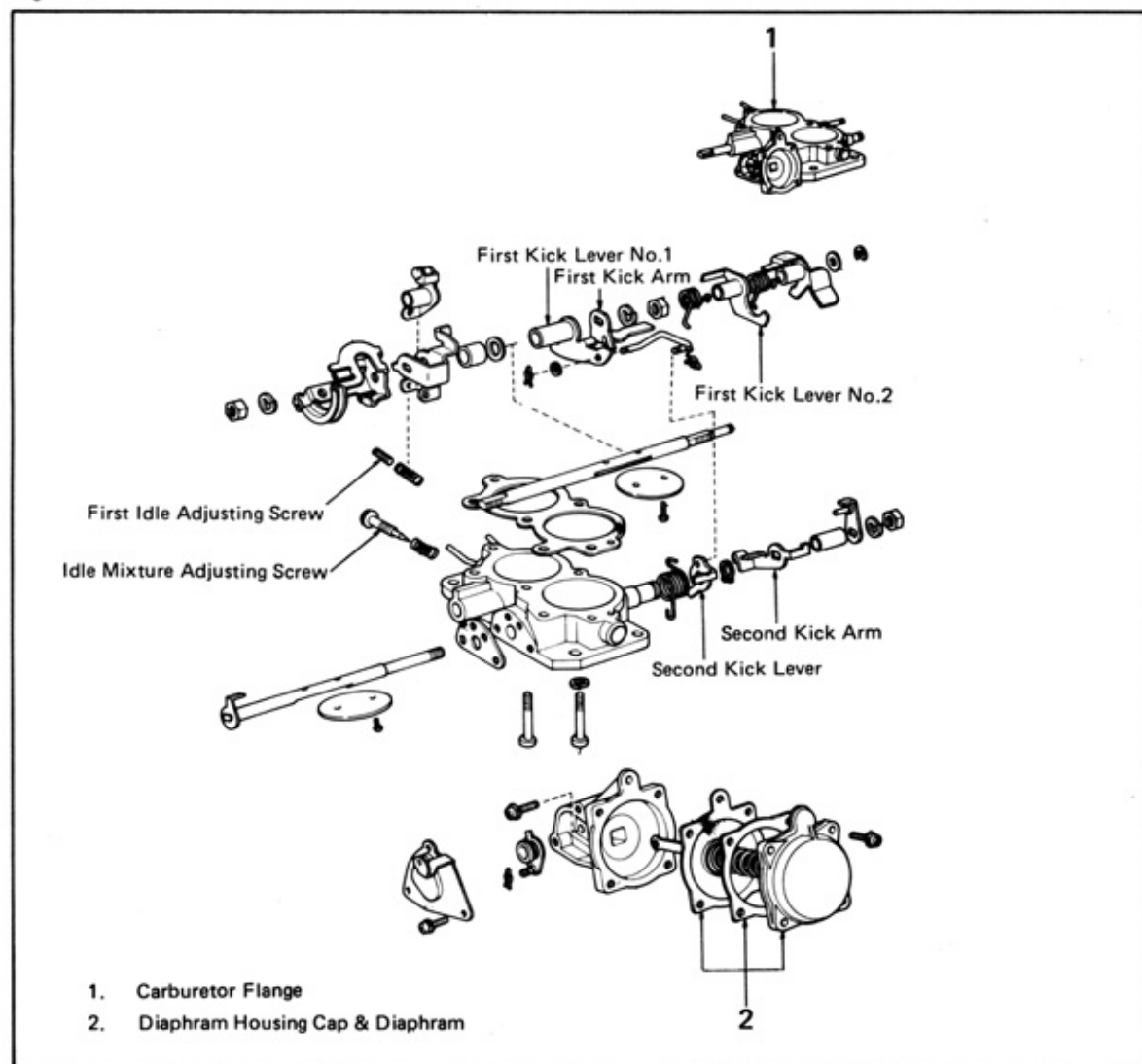
Fig. 6-15



- | | |
|---------------------------------------|-------------------------------|
| 1. Air Horn | 9. Main Passage Plug & Gasket |
| 2. First Small Venturi | 10. First Main Jet & Gasket |
| 3. Second Small Venturi | 11. Second Main Jet & Gasket |
| 4. Power Valve & Power Jet | 12. Level Gauge & Clamp |
| 5. Plug & Steel Ball No.2 | 13. Solenoid Valve |
| 6. Pump Plunger | 14. First Idle Cam & Lever |
| 7. Pump Jet, Spring & Steel Ball No.1 | 15. AAP (Australia Only) |
| 8. Second Slow Jet | |

Flange

Disassemble in numerical order.

Fig. 6-16**Fig. 6-17**

1. Disconnect the Pump Link.
2. Remove the flange set screw.

INSPECTION

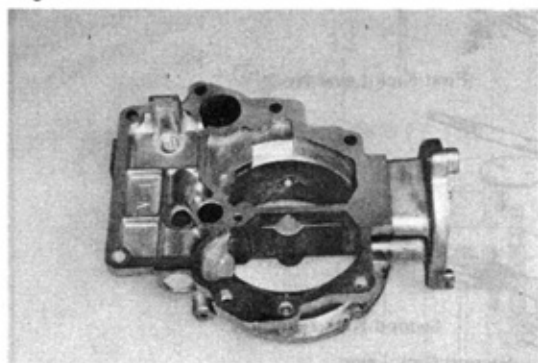
– Precaution –

1. Before inspecting the parts, wash them thoroughly in carburetor cleaner. Using compressed air, blow all dirt and other foreign matter from the jets and similar parts, and from the fuel passages and restrictions in the body.
2. Wash and clean the cast parts with a soft

brush.

3. Clean off carbon adhering around the throttle valve.
4. Never clean the jets or orifices with wire or a drill. This could enlarge the openings and result in excessive fuel consumption.

Fig. 6-18

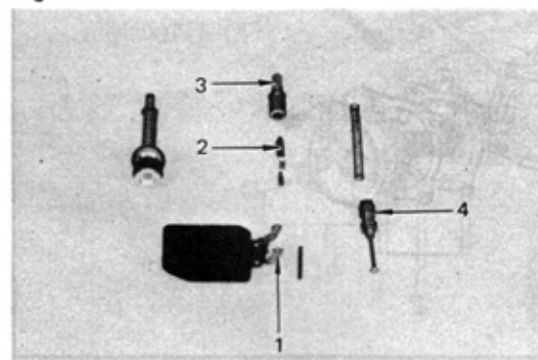


Inspect the following parts and replace any part found defective.

Air Horn Parts

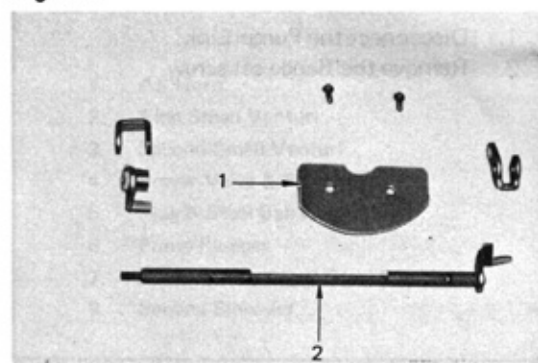
1. Air horn: Cracks, damaged threads, and wear on choke shaft bores.

Fig. 6-19



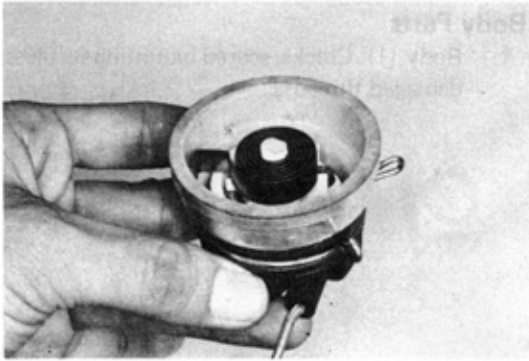
2. Float (1): Broken lip, wear in float pivot pin holes.
3. Needle valve (2) surface contacting valve seat.
4. Strainer (3): Rust, breaks.
5. Power piston (4): Scratches, excessive wear. Power piston spring broken or deformed.

Fig. 6-20



6. Choke valve (1): Deformation. Choke shaft worn, bent, or not fitting properly into housing.
7. Choke shaft (2): Wear, bending or twisting.

Fig. 6-21



8. Coil housing: Cracks, thermostatic bimetal.

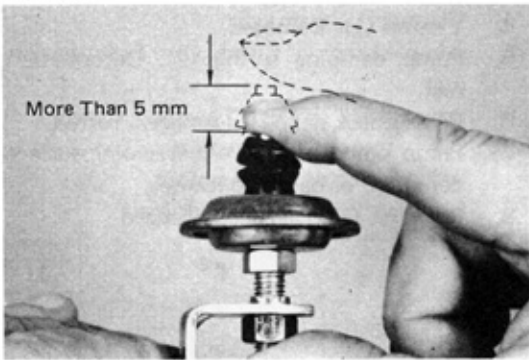
Fig. 6-22



9. Heating coil (including PTC):
Measure with circuit tester as shown.

Resistance 6.7 – 7.7 Ω (Exc. Australia)
7.7 – 8.7 Ω (For Australia)

Fig. 6-23



Dash Pot

Must have resistance when pushed in, and the stroke should be more than 5 mm (0.2 in.).

Fig. 6-24

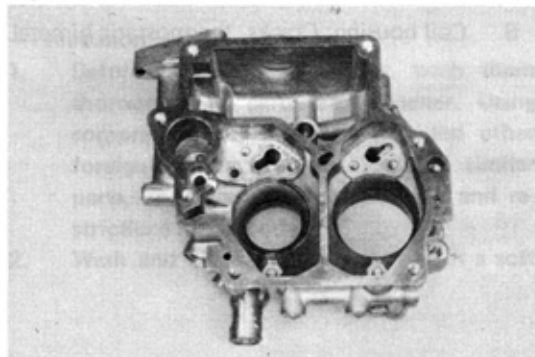


Diaphragms (Throttle Positioner, Choke Breaker, Choke Opener)

Connect hose to each diaphragm and suck the hose with mouth.

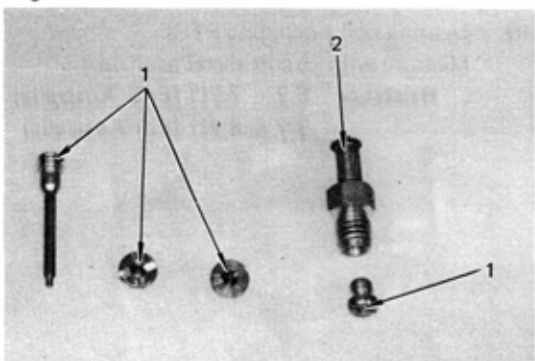
The diaphragm should move.

Fig. 6-25

**Body Parts**

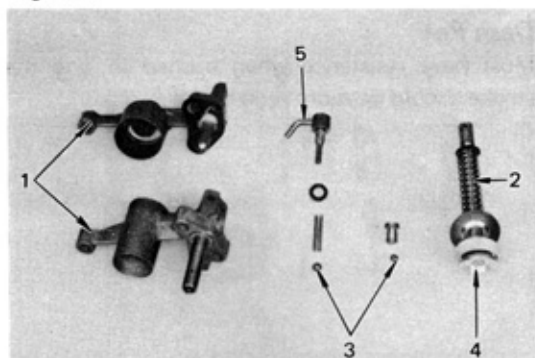
1. Body (1): Cracks, scored mounting surfaces, damaged threads.

Fig. 6-26



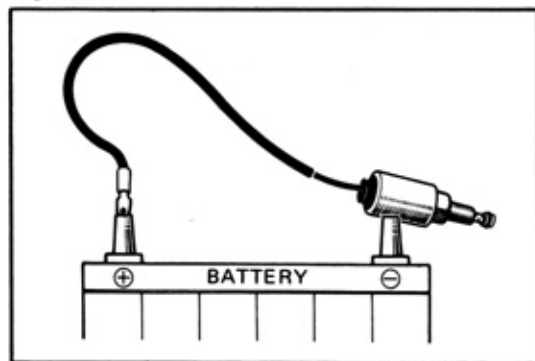
2. Jets (1): Damaged contacting surface, damaged threads and screwdriver slots.
3. Power Valve (2): Faulty opening and closing action, damaged contacting surface and threads.

Fig. 6-27



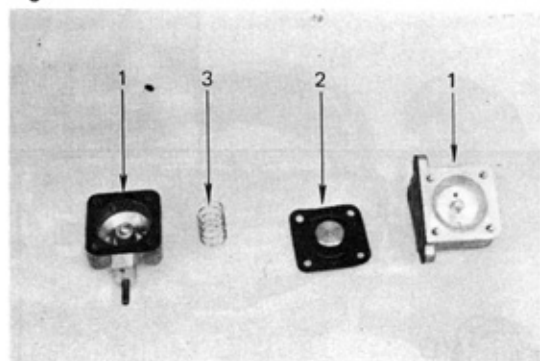
4. Venturi (1): Damaged.
5. Pump damping spring (2): Deformation, rust.
6. Pump check ball (3): Damaged, rusted.
7. Pump plunger (4): Wear at sliding surface, deformed or damaged leather.
8. Pump jet (5): Damaged, clogged.

Fig. 6-28

**Solenoid Valve**

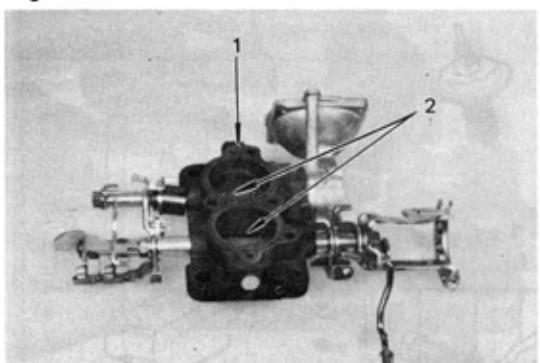
1. Inspect the solenoid valve for damage.
2. Check operation of solenoid valve. Connect wiring to the battery positive terminal and ground the body. The needle valve should be pulled in.

Fig. 6-29

**AAP**

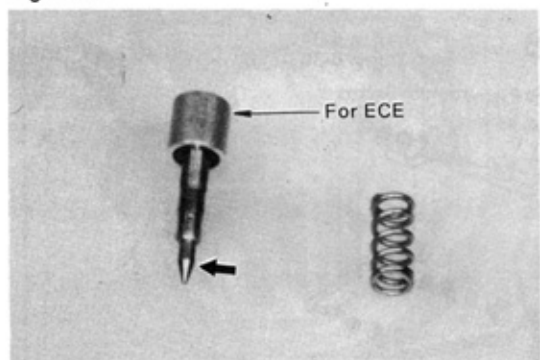
1. Housing (1): Cracks.
2. Diaphragm (2): Damaged.
3. Diaphragm spring (3): Damaged and rusting.

Fig. 6-30

**Flange Parts**

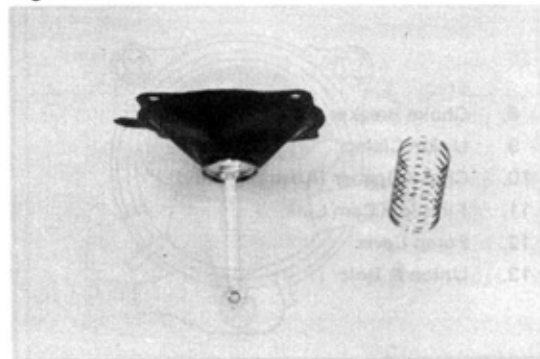
1. Flange (1): Cracks, damaged mounting surfaces and threads, wear at throttle shaft bearings.
2. Throttle valves (2): Wear or deformation in valves. Wear, bending, twisting, or faulty movement inside housing of shaft.

Fig. 6-31



3. Idle mixture adjusting screw: Damage at tapered tip or threads.

Fig. 6-32



4. Secondary diaphragm: Damaged.

ASSEMBLY

Air Horn

Assemble in numerical order.

Fig. 6-33

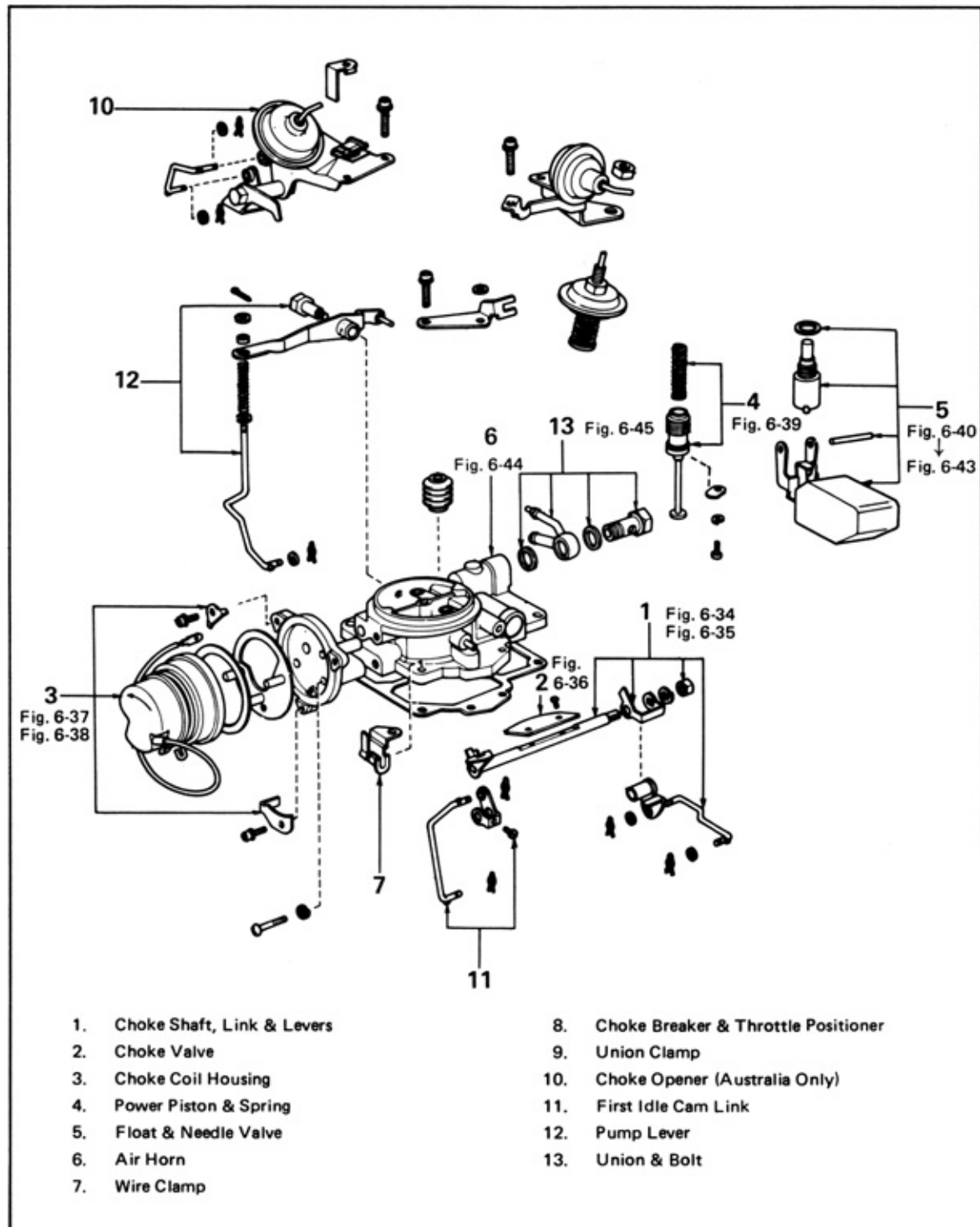
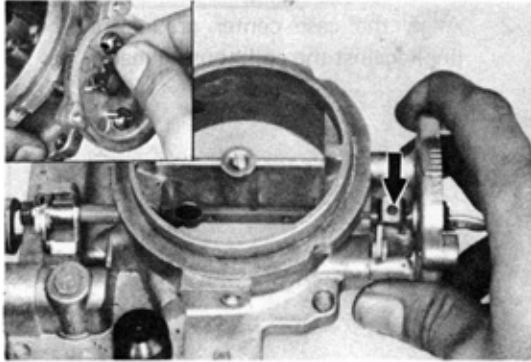
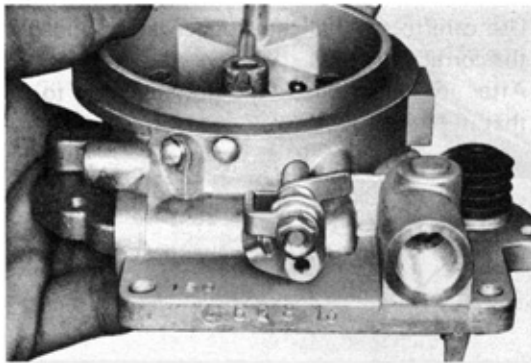


Fig. 6-34



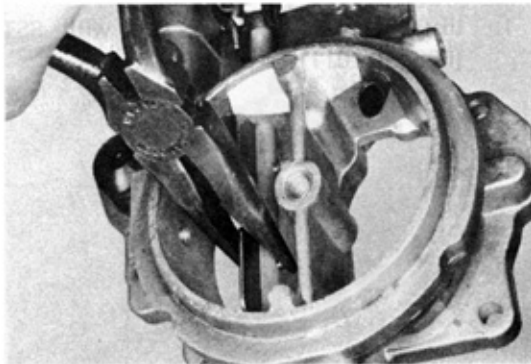
1. Install the choke shaft through first idle cam lever.

Fig. 6-35



2. Install choke breaker levers as shown.

Fig. 6-36

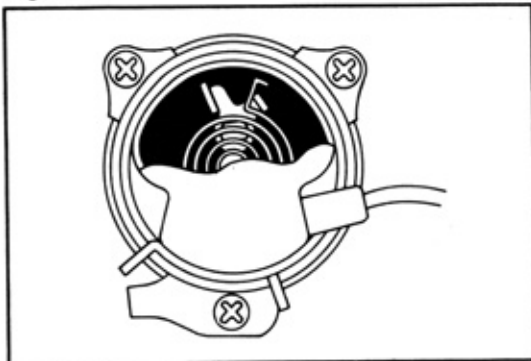


1. Install the choke valve.
2. Check the choke valve to see that it moves smoothly.
3. Peen the ends of the set screws.

– **Caution** –

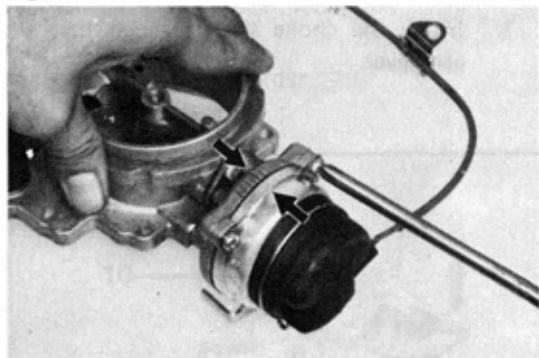
Use new set screws.

Fig. 6-37



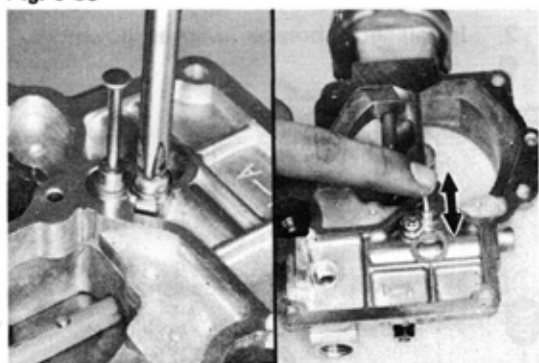
1. Position the housing so that when turned clockwise, the choke valve will close.

Fig. 6-38



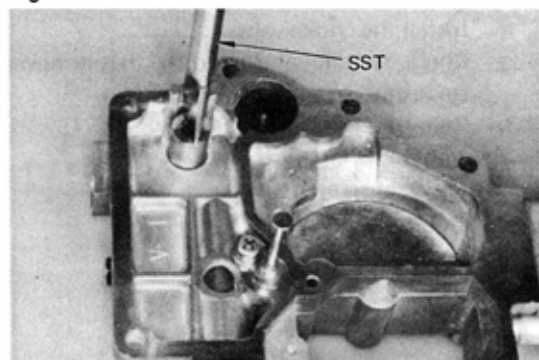
- Align the case center graduation (heavy line) against the coil housing mark.

Fig. 6-39



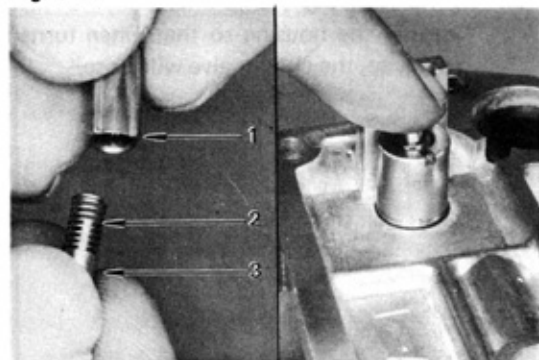
- Use care to see that the stopper is positioned in the correct direction.
After installing, check the power piston to see that it moves smoothly.

Fig. 6-40



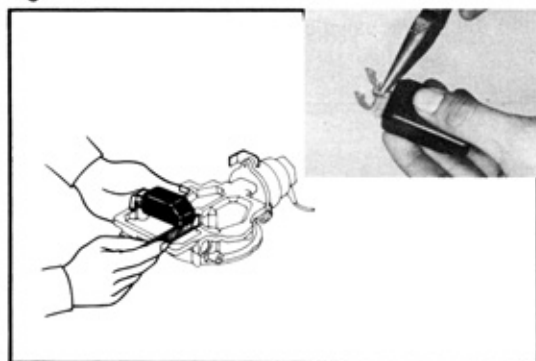
- Install the needle valve seat with SST [09860-11011].

Fig. 6-41



- Fit on needle valve (1), spring (2) and push pin (3) in order.
- After installing, check the needle valve to see that it moves smoothly.

Fig. 6-42

**Adjust float level.**

Allow the float to hang down by its own weight. Then check the clearance between the float tip and air horn with SST [09240-00011].

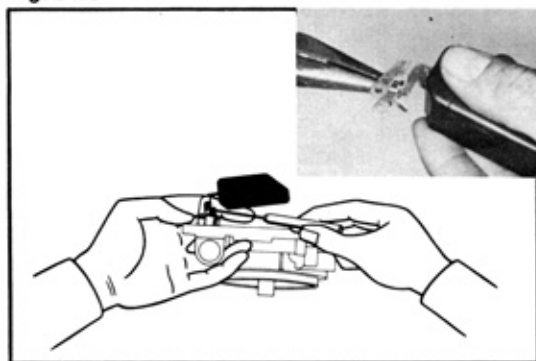
Standard **13 mm (0.5 in.)**

Adjust by bending the (A) part of float lip.

– **Note** –

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

Fig. 6-43

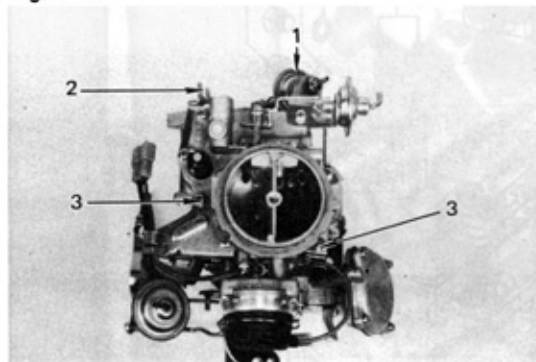
**Adjust lowered position.**

Lift up the float and check the clearance between the needle valve plunger and float lip with SST [09240-00011].

Standard **1 mm (0.04 in.)**

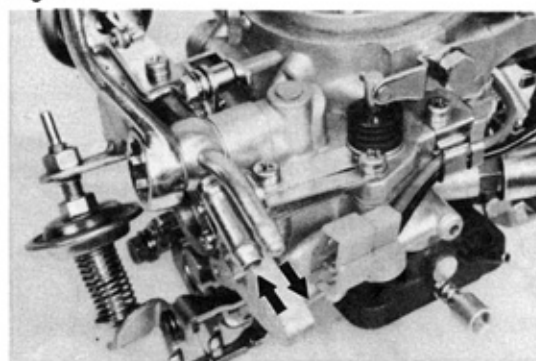
Adjust by bending the (B) part of float lip.

Fig. 6-44



Make sure to correctly position the throttle positioner (1), union clamp (2), and wire clamp (3).

Fig. 6-45



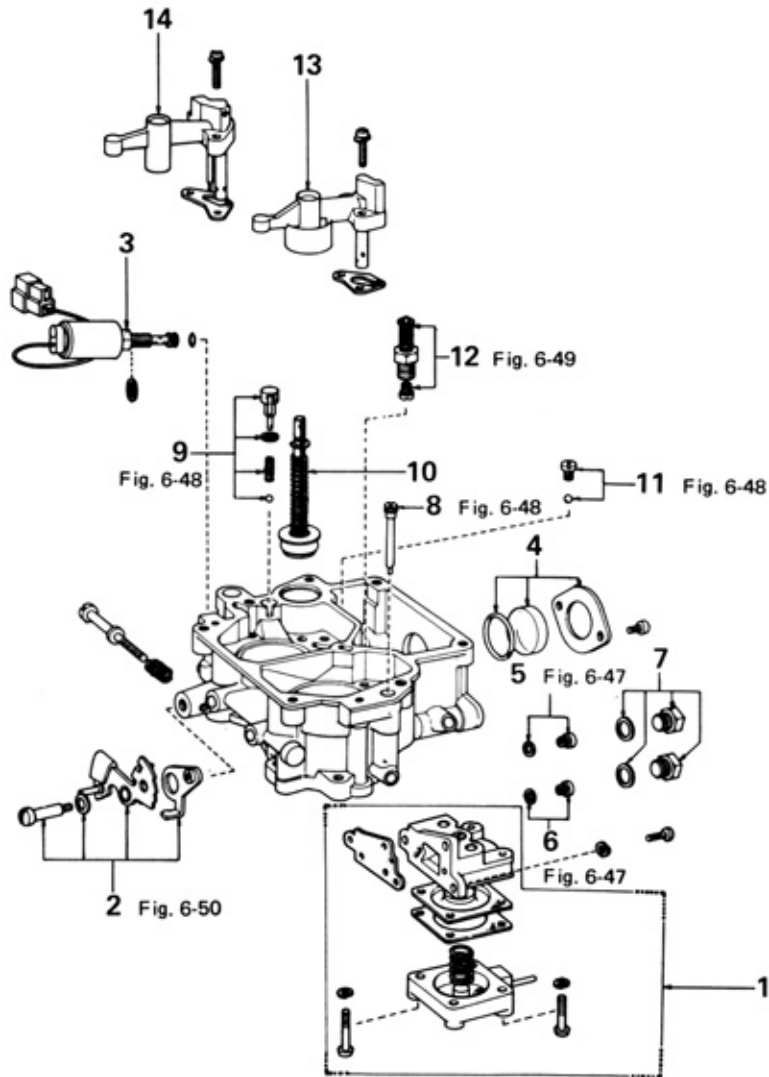
Connect the unions.

Large inside diameter Fuel pump

Small inside diameter Fuel return

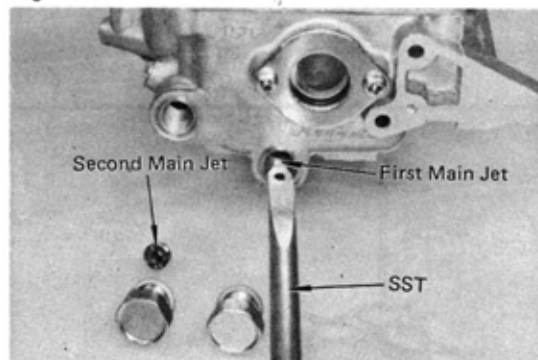
Body

Assemble in numerical order. Using SST[09860-11011], install the power valve and jets.

Fig. 6-46

- | | | | |
|---|----------------------------|----|------------------------------------|
| 1 | AAP (Australia Only) | 9 | Pump Jet, Spring & Steel Ball No.1 |
| 2 | First Idle Cam & Lever | 10 | Pump Plunger |
| 3 | Solenoid Valve | 11 | Plug & Steel Ball No.2 |
| 4 | Level Gauge & Clamp | 12 | Power Valve & Power Jet |
| 5 | First Main Jet & Gasket | 13 | Second Small Venturi |
| 6 | Second Main Jet & Gasket | 14 | First Small Venturi |
| 7 | Main Passage Plug & Gasket | 15 | Air Horn |
| 8 | Second Slow Jet | | |

Fig. 6-47



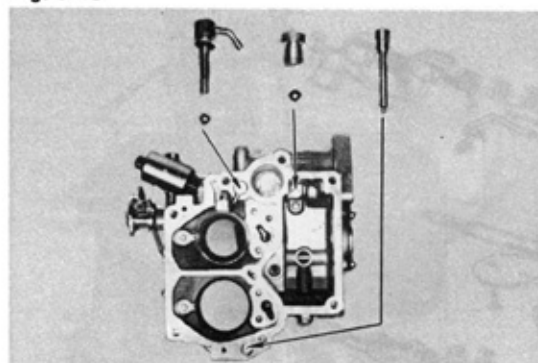
Install the first and second main jets with SST [09860-11011].

Use care to differentiate between first and second sides.

First main jet Yellow

Second main jet White

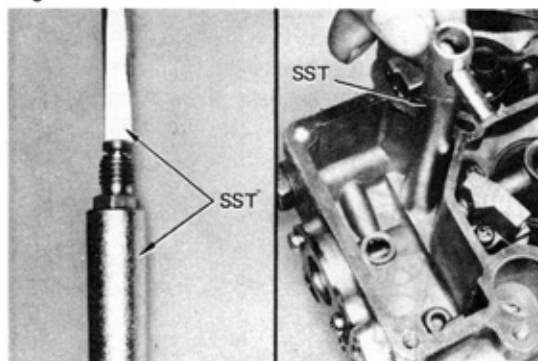
Fig. 6-48



Install the following parts at the locations shown in Fig. 6-48.

1. Second slow jet
2. Pump jet, spring, and steel ball No.1
3. Plug nut and steel ball No.2

Fig. 6-49

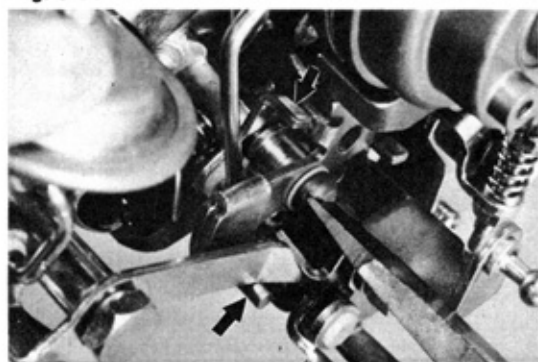


1. Install the jet to the power valve.
2. Install to the body.

– Note –

Use SST [09860-11011].

Fig. 6-50

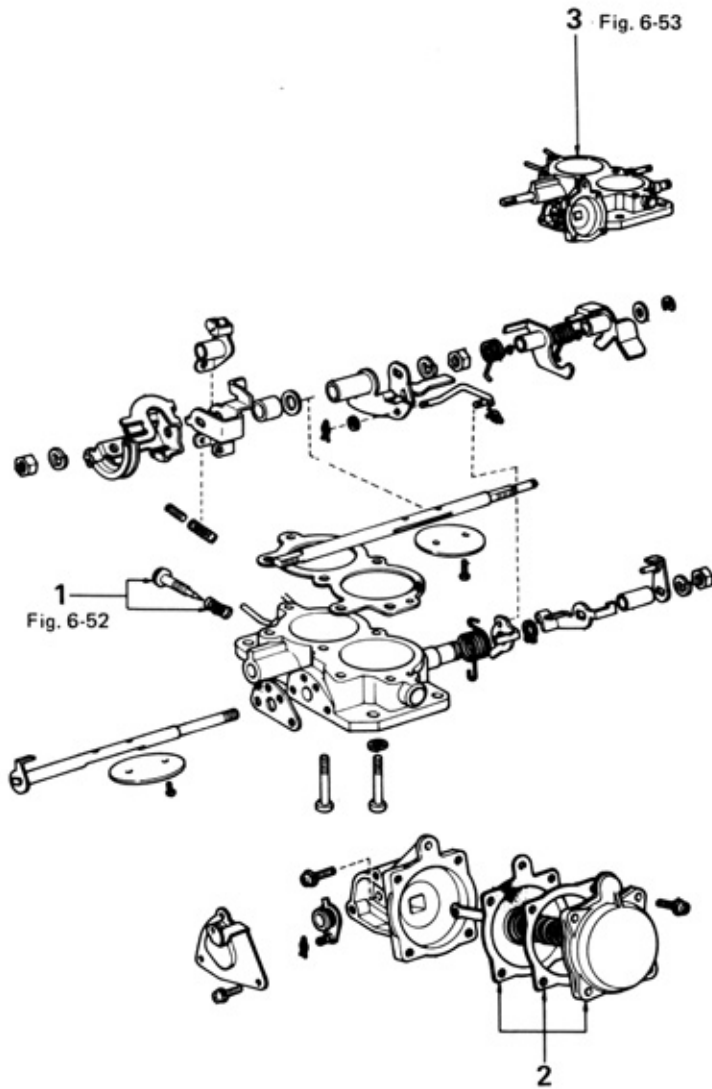


– Note –

After installing, operate the choke opener to verify that the choke valve will open.

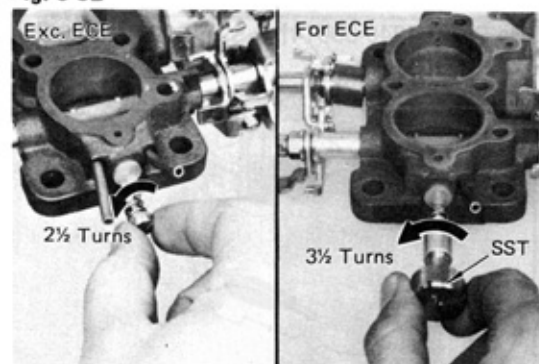
Flange

Assemble in numerical order.

Fig. 6-51

- 1 Idle Mixture Adjusting Screw & Spring
- 2 Diaphragm Housing Cap & Diaphragm
- 3 Carburetor Flange

Fig. 6-52



Close fully and then return about $2\frac{1}{2}$ or $3\frac{1}{2}$ (For ECE) turns.

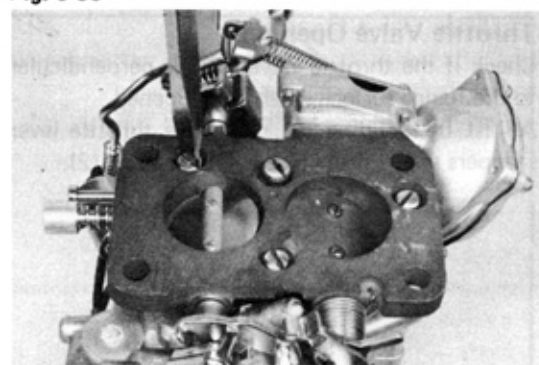
– **Caution** –

Use care not to screw in too tightly and damage the screw tip.

– **Note** –

Use SST[09243-00010] (Only ECE)

Fig. 6-53



In the flange set screws, there is one provided with hole.

Make sure to install this in the right place.

Fig. 6-54

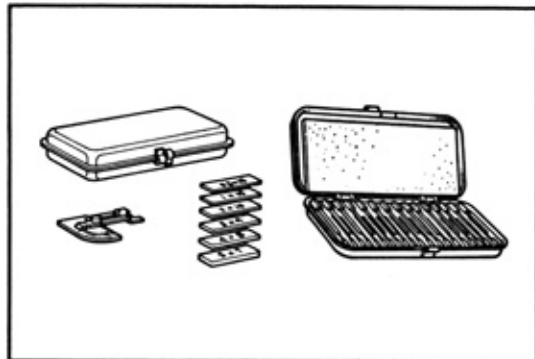


Fig. 6-55

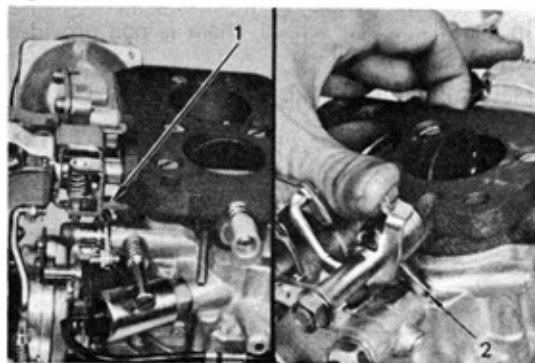


Fig. 6-56

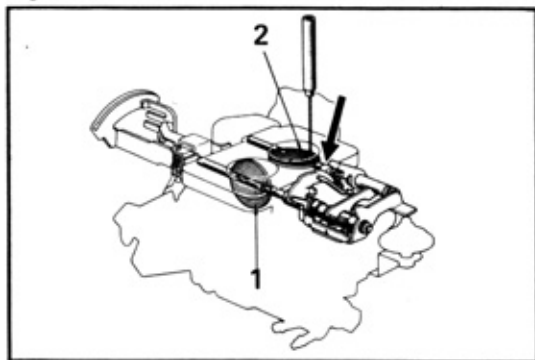
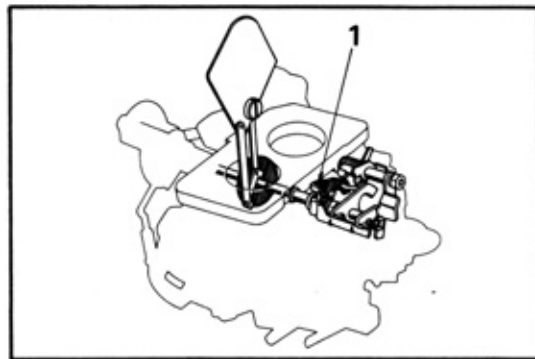


Fig. 6-57



ADJUSTMENT

Use SST [09240-00014] & SST [09240-00020] to make adjustment.



Throttle Valve Openings

Check if the throttle valves will be perpendicular to the flange surface when fully opened. Adjust by bending the respective throttle lever stoppers at the first (1) and second sides (2).



Kick Up

With the first throttle valve (1) fully opened, check the clearance between the second valve (2) and body.

Adjust by bending second kick arm.

Standard clearance 0.4 mm (0.0016 in.)

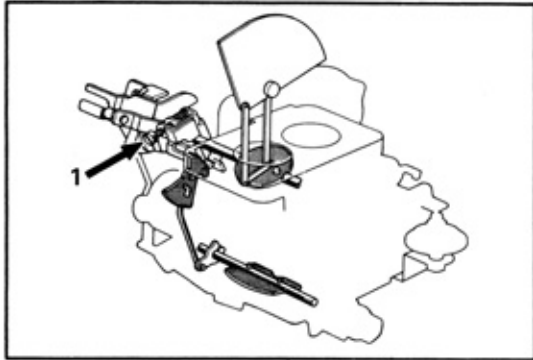
Seco-touch Angle

Check the first throttle valve opening at the time the second throttle valve just starts to open.

Adjust by bending the first kick lever (1).

Standard 64° from horizontal

Fig. 6-58

**Fast Idle**

With choke valve fully closed, check the first throttle valve angle.

Adjust by turning fast idle adjusting screw (1).

Standard **24° (Exc. Australia)**
(Reference value)

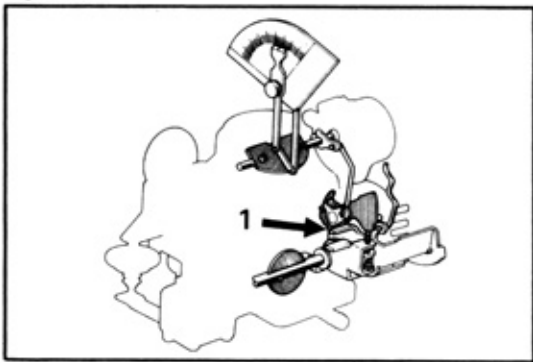
26° (For Australia)
from horizontal surface

– Note –

Make the fast idle adjustment in relation to engine speed after installing the carburetor.

Engine Speed **2500 ± 200 rpm**

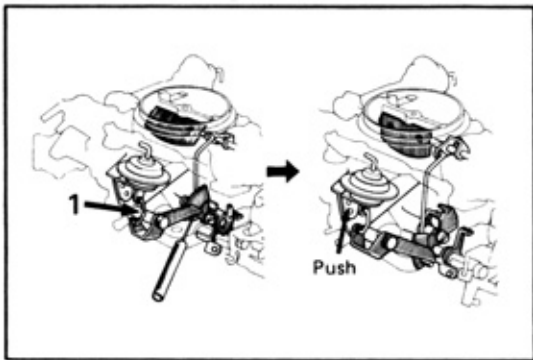
Fig. 6-59

**Unloader**

With first throttle valve fully opened, check the choke valve angle. Adjust by bending the fast idle lever (1).

Standard **34° from horizontal surface**

Fig. 6-60

**Choke Opener**

Check the clearance between the fast idle cam pin and the breaker lever when the choke valve is fully closed.

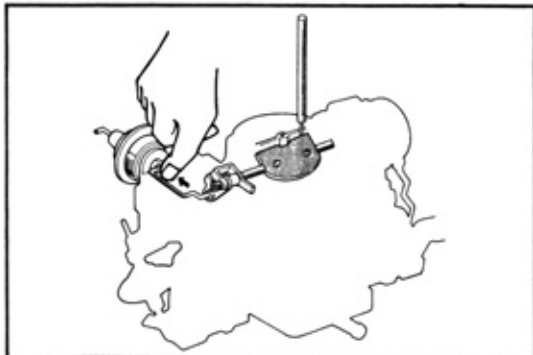
Adjust by bending the lever (1).

Standard **0.5 – 1.5 mm**
(0.02 – 0.06 in.)

– Note –

When choke opener is fully pushed in, the throttle link should not catch on the fast idle cam.

Fig. 6-61

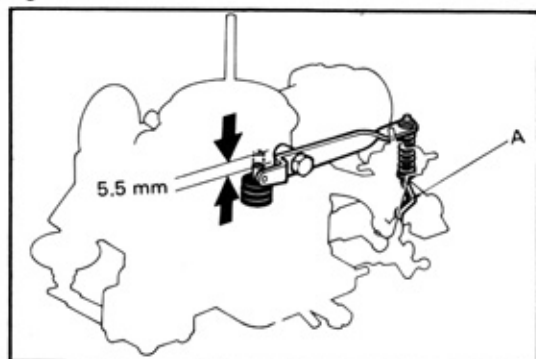
**Choke Breaker**

Push in choke breaker rod (1) to open choke valve and check the clearance between choke valve and body.

Adjust by bending the relief lever (2).

Standard **2.1 – 2.3 mm (Exc. Australia)**
(0.0827 – 0.0906 in.)
2.3 – 2.5 mm (For Australia)
(0.0906 – 0.0984 in.)

Fig. 6-62

**Accelerating Pump**

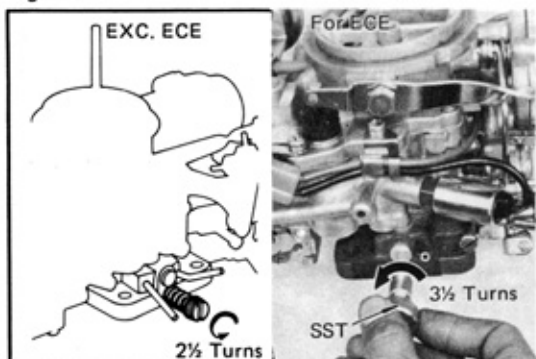
Adjust the pump stroke by bending part A.

Standard **5.5 mm (0.217 in.)**

– Note –

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

Fig. 6-63

**Idle Mixture Adjusting Screw**

Screw in the idle mixture adjusting screw and then unscrew it by the following amount.

Standard **2½ turns from full closed**
(Exc. ECE)

3½ turns from full closed
(For ECE)

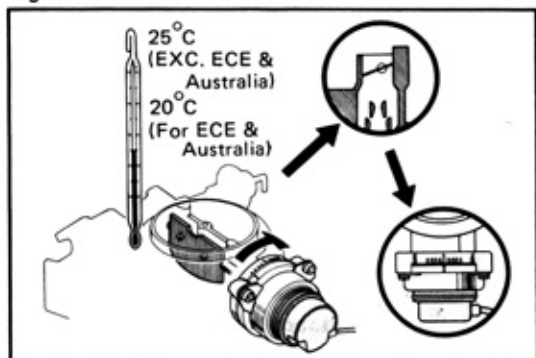
– Caution –

Use care not to screw in too tightly and damage the screw tip.

– Note –

Use SST [09243-00010] (ECE Only)

Fig. 6-64

**Automatic Choke Set**

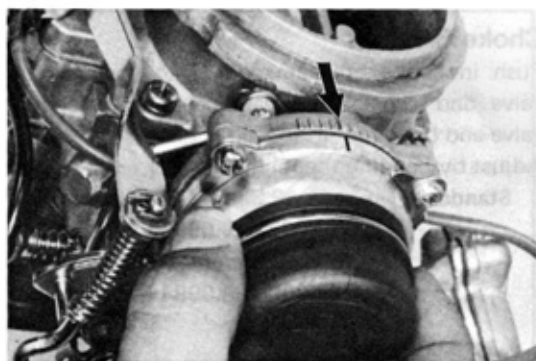
1. Set the choke valve to full open state and verify that it will start to close when the coil housing is rotated clockwise.
2. Set the coil housing mark against the case graduation center line (heavy line).

– Note –

The choke valve becomes fully closed when atmospheric temperature reaches following value.

25°C (77°F)	Exc. ECE and Australia
20°C (68°F)	For ECE and Australia

Fig. 6-65



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

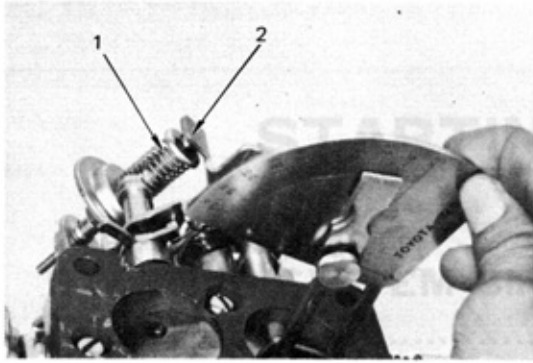
If too rich Turn clock-wise.

If too lean Turn counterclock-wise.

– Note –

One graduation equals about 5°C (9°F) change.

Fig. 6-66

**Throttle Positioner**

Contact throttle positioner rod (1) to throttle lever tab (2) and check the first throttle valve angle.

Adjust the throttle valve angle by turning throttle positioner body.

Standard	17° (For Australia)
	18.5° (For ECE)

– Note –

After installing carburetor, adjust it on vehicle. Refer to “ENGINE TUNE-UP” section.

MEMO
