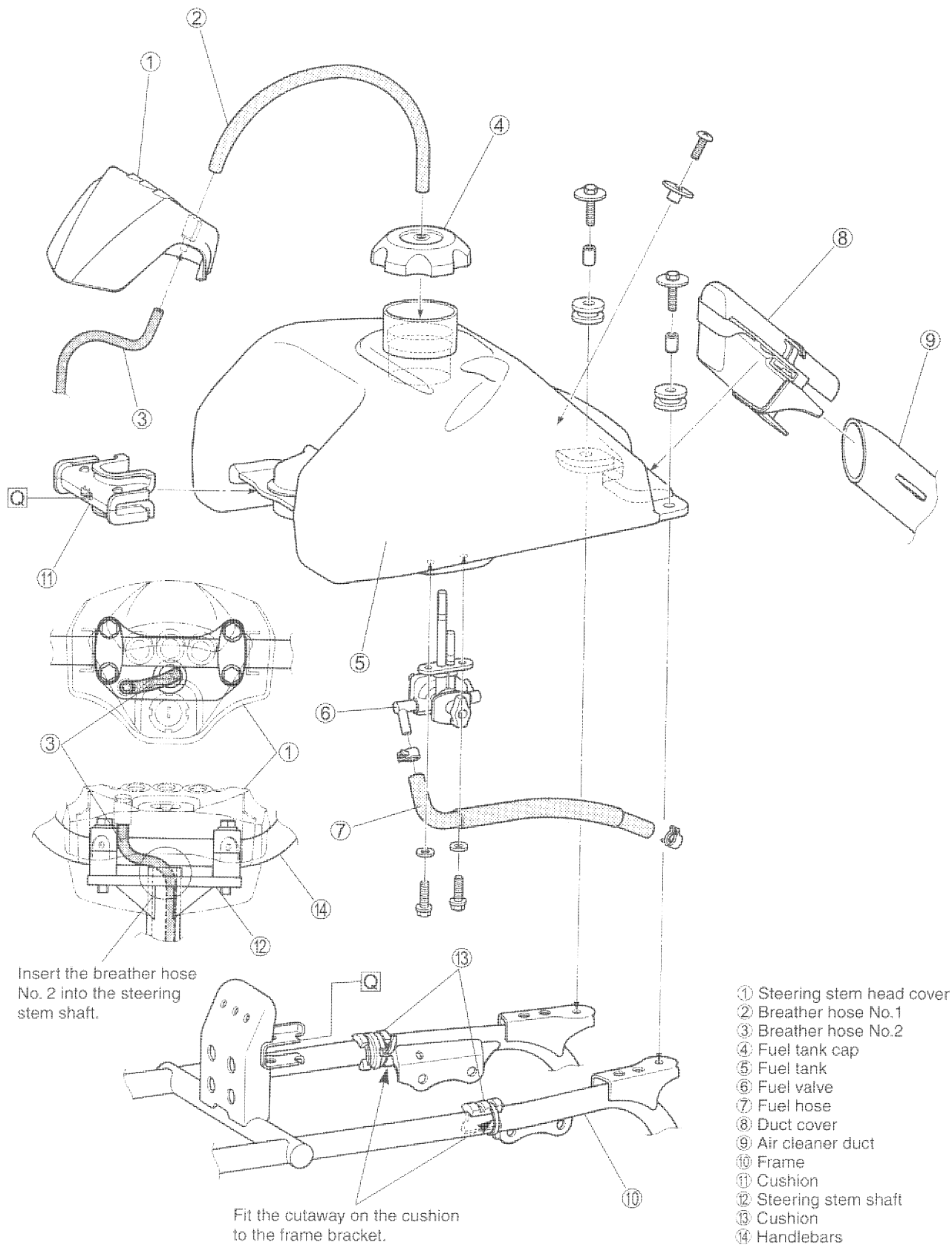


FUEL SYSTEM

CONTENTS

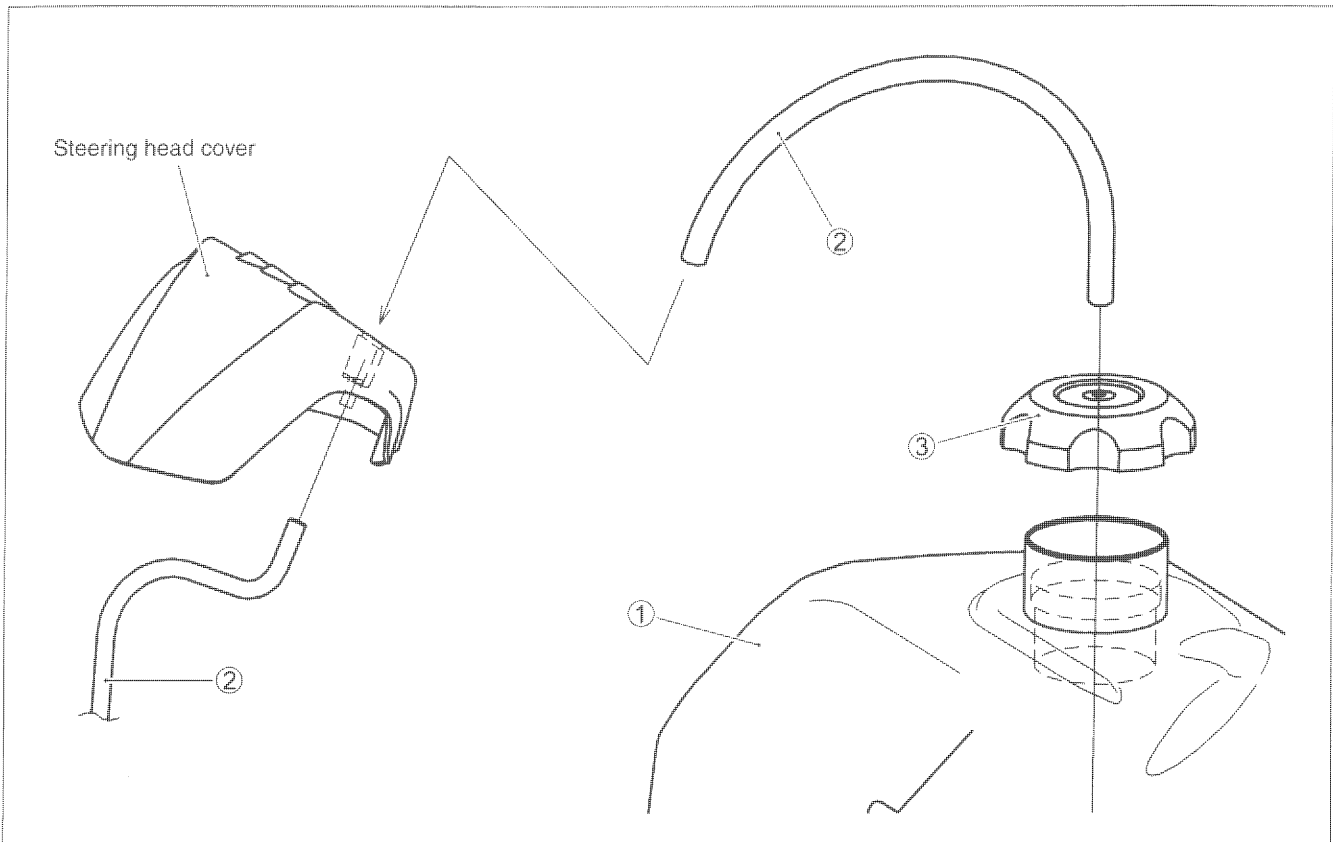
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FUEL TANK CONSTRUCTION



FUEL LINE INSPECTION

Inspect the fuel lines, fuel tank ①, fuel tank breather hoses ② and fuel tank cap ③ for damage, clogging and leakage of fuel. If any damages are found, replace the defective parts with the new ones.

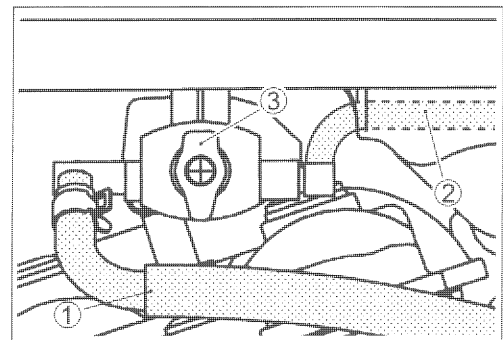


REMOVAL

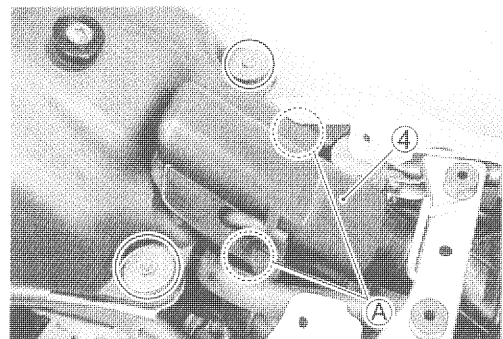
- Remove the seat, fuel tank side covers. (☞ 6-4)
- Turn the fuel valve to the "ON" position.
- Disconnect the fuel hose ① and vacuum hose ②.
- Remove the fuel valve knob ③ by removing a screw.

⚠ WARNING

Gasoline is highly flammable and explosive.
Keep heat, sparks and flames away from gasoline.



- Remove the air cleaner duct cover ④ by releasing stopper (A).
- Remove the fuel tank mounting bolts.
- Remove the fuel tank.
- Drain fuel completely.



REMountING

Remount the fuel tank in the reverse order of removal.

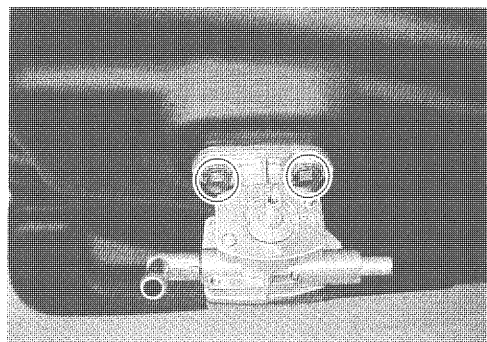
FUEL VALVE

REMOVAL AND INSPECTION

- Remove the fuel tank. (☞ 4-3)
- Drain fuel completely.
- Remove the fuel valve.

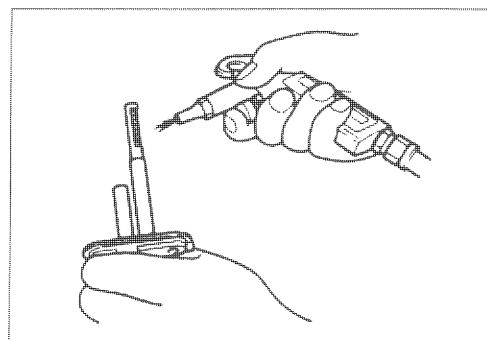
⚠ WARNING

Gasoline is highly flammable and explosive.
Keep heat, sparks and flames away from gasoline.



FUEL STRAINER

If the fuel strainer is dirty with sediment or rust, fuel will not flow smoothly and loss in engine power may result. Clean the fuel strainer with compressed air.

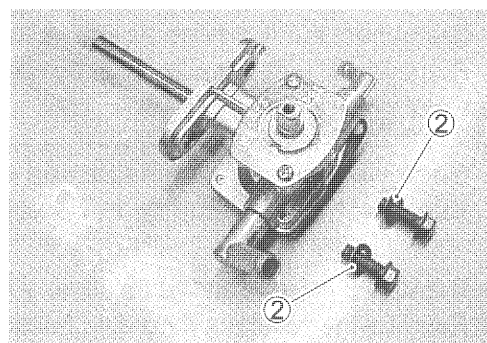
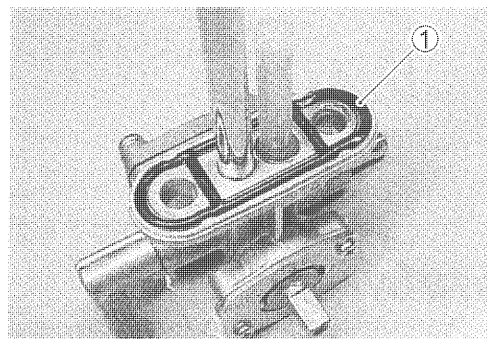


REMountING

Remount the fuel valve in the reverse order of removal.

⚠ WARNING

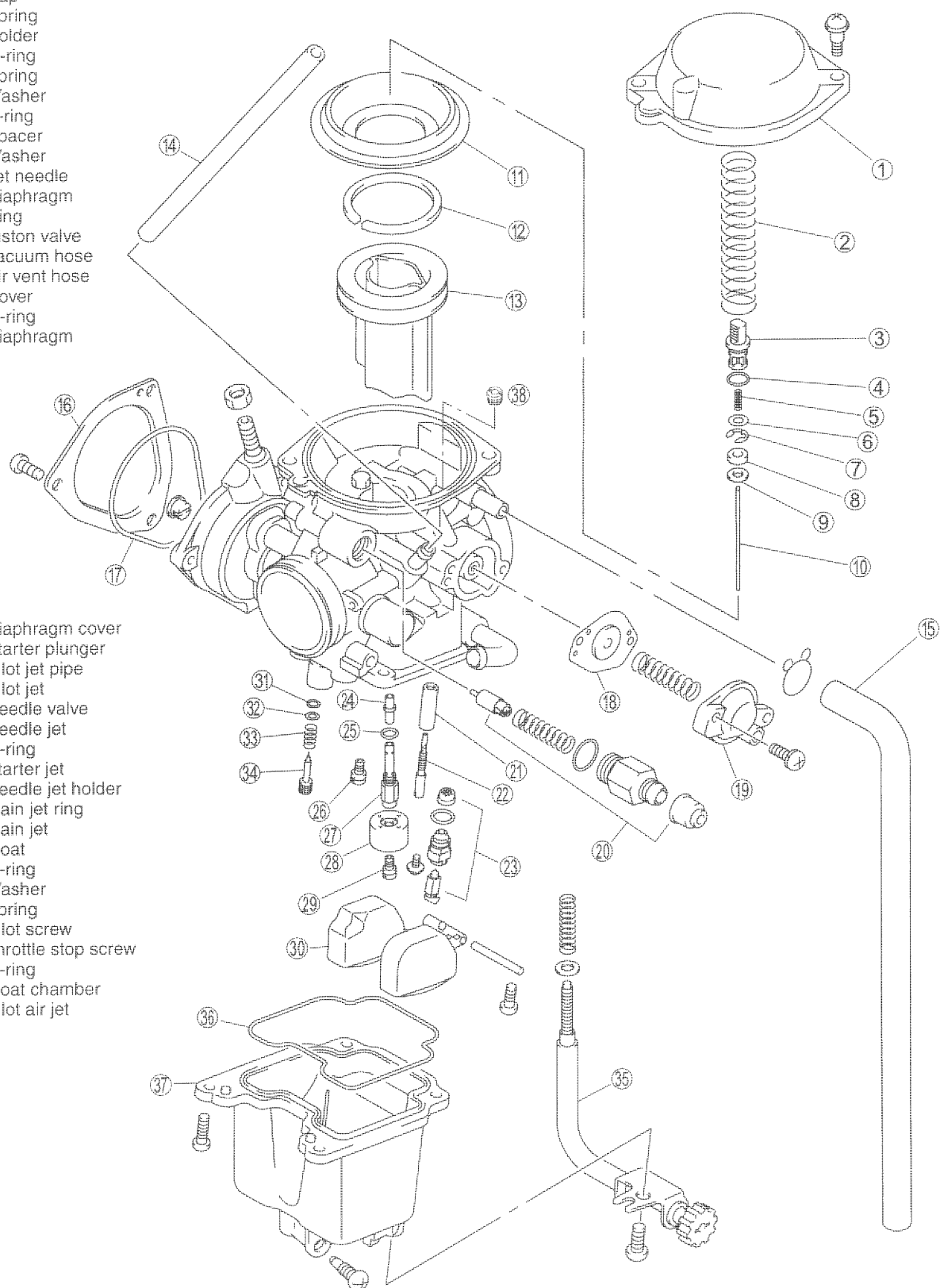
Replace the removed gasket ① and seal washers ② with the new ones to prevent leakage of fuel.



CARBURETOR CONSTRUCTION

- ① Cap
- ② Spring
- ③ Holder
- ④ O-ring
- ⑤ Spring
- ⑥ Washer
- ⑦ E-ring
- ⑧ Spacer
- ⑨ Washer
- ⑩ Jet needle
- ⑪ Diaphragm
- ⑫ Ring
- ⑬ Piston valve
- ⑭ Vacuum hose
- ⑮ Air vent hose
- ⑯ Cover
- ⑰ O-ring
- ⑱ Diaphragm

- ⑲ Diaphragm cover
- ⑳ Starter plunger
- ㉑ Pilot jet pipe
- ㉒ Pilot jet
- ㉓ Needle valve
- ㉔ Needle jet
- ㉕ O-ring
- ㉖ Starter jet
- ㉗ Needle jet holder
- ㉘ Main jet ring
- ㉙ Main jet
- ㉚ Float
- ㉛ O-ring
- ㉜ Washer
- ㉝ Spring
- ㉞ Pilot screw
- ㉟ Throttle stop screw
- ㊱ O-ring
- ㊲ Float chamber
- ㊳ Pilot air jet



SPECIFICATIONS

ITEM	SPECIFICATION	
	E-03, 28	E-33
Carburetor type	MIKUNI BSR36	←
Bore size	36 mm	←
I.D. No.	07G0	07G1
Idle r/min	1 500 ± 100 r/min	←
Float height	13.0 ± 1.0 mm (0.51 ± 0.04 in)	←
Main jet (M.J.)	#130	# 130
Jet needle (J.N.)	5E26-1	←
Needle jet (N.J.)	P-0M	# P-0M
Pilot jet (P.J.)	#22.5	# 22.5
Pilot screw (P.S.)	2 ¼ turns back	PRE-SET
Throttle cable play	3 – 5 mm (0.12 – 0.20 in)	←
Starter (enricher) plunger cable play	0.5 – 1.0 mm (0.02 – 0.04 in)	←

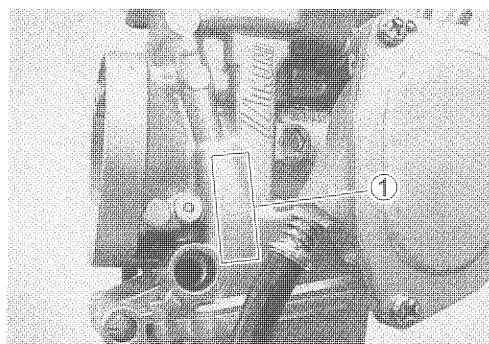
E-03: USA

E-28: Canada

E-33: California (USA)

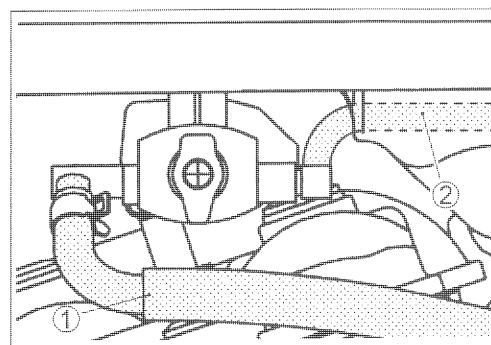
I.D. NO. LOCATION

Carburetor has an I.D. number ① punched on its body.

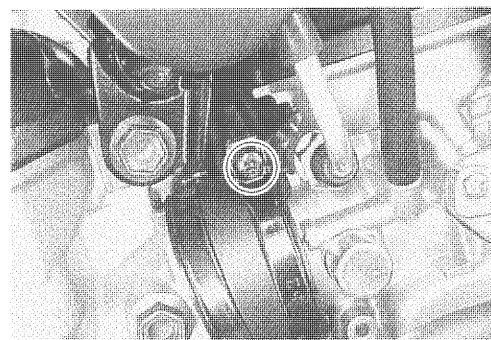


REMOVAL

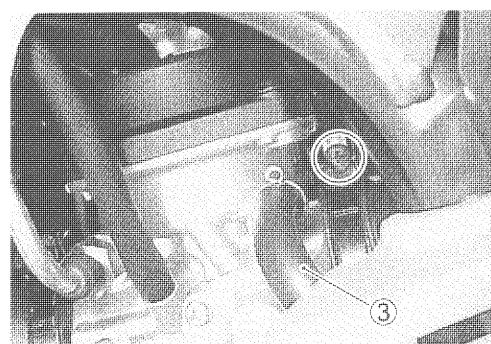
- Remove the fuel tank left side cover. (☞ 6-4)
- Disconnect the fuel hose ① and vacuum hose ②.



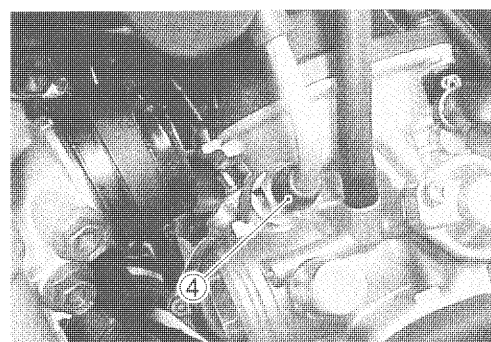
- Loosen the carburetor clamp screw.



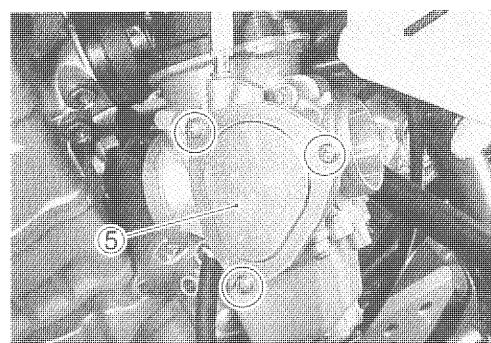
- Loosen the carburetor clamp screw.
- Disconnect the air vent hose ③.



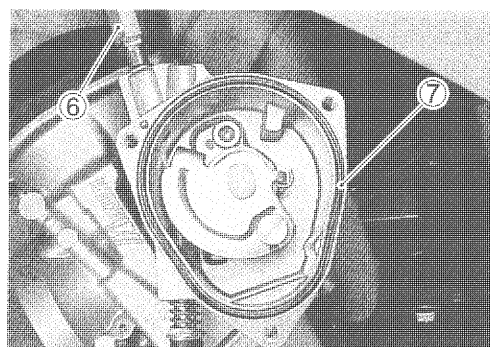
- Disconnect the starter cable ④.



- Remove the carburetor side cap ⑤.

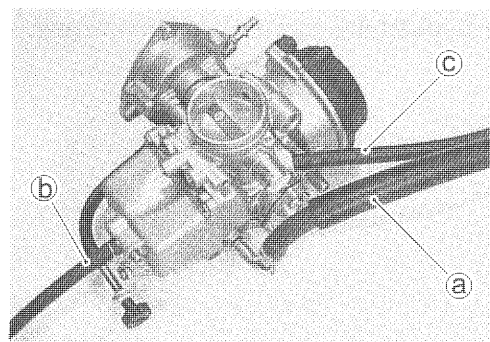


- Disconnect the throttle cable ⑥.
- Remove the O-ring ⑦.

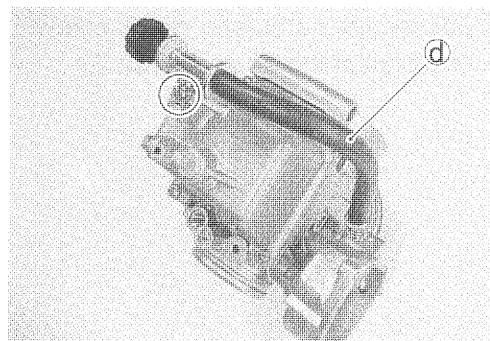


DISASSEMBLY

- Remove the fuel hose (a), over flow hose (b) and vacuum hose (c).



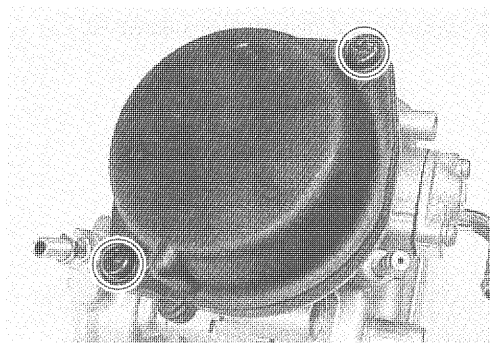
- Remove the throttle stop screw (d).



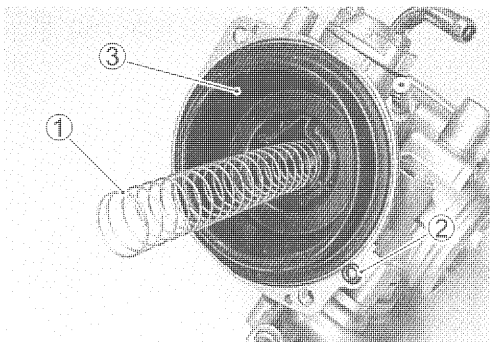
- Remove the carburetor top cap.

CAUTION

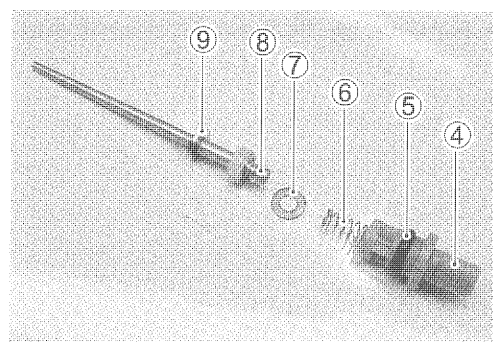
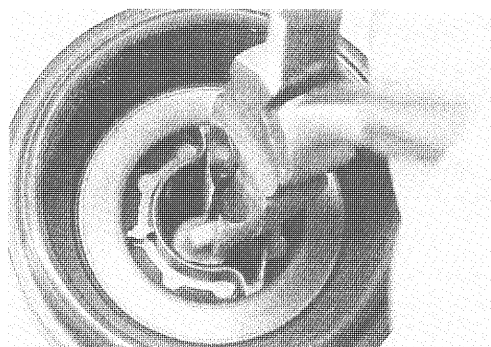
Do not use compressed air on the carburetor body before removing the diaphragm; this may damage the diaphragm.



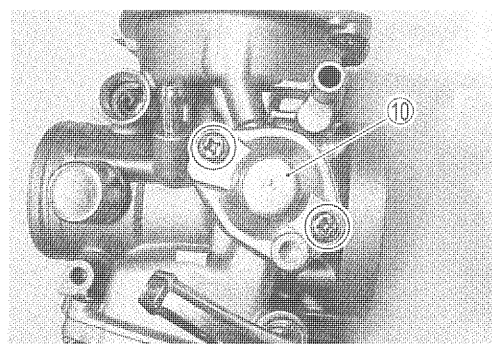
- Remove the spring (1), O-ring (2) and diaphragm assembly (3).



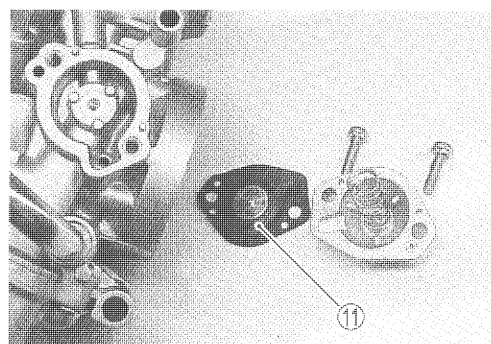
- Remove the jet needle holder ④, O-ring ⑤, spring ⑥, washer ⑦, jet needle ⑧ and washer ⑨.



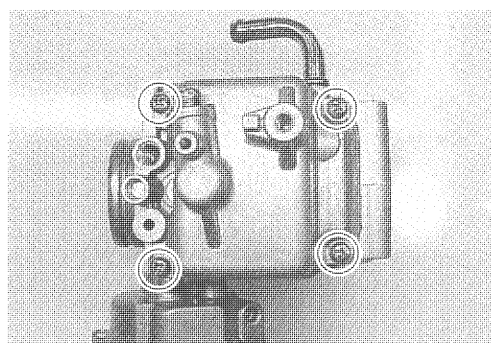
- Remove the diaphragm cover ⑩.



- Remove the diaphragm ⑪.



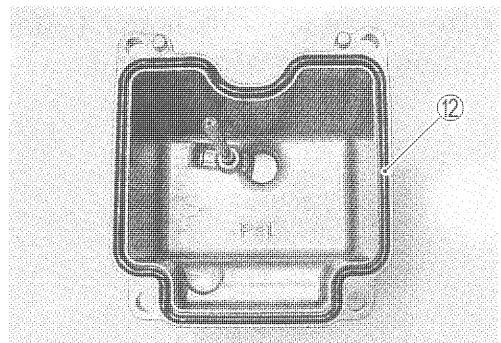
- Remove the float chamber.



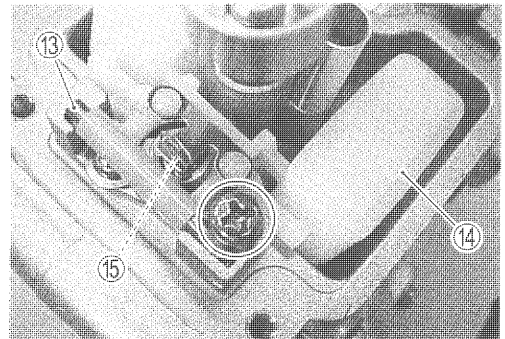
- Remove the O-ring ⑫.

CAUTION

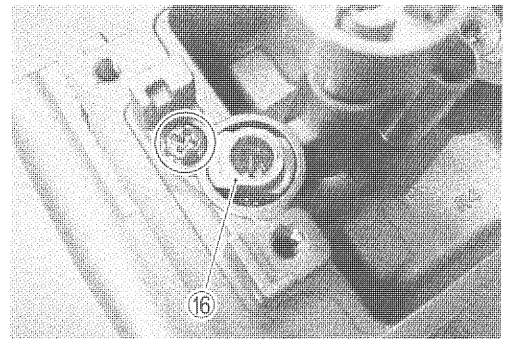
Replace the removed O-ring with a new one to prevent leakage of fuel.



- Remove the float pin ⑬, float ⑭ and needle valve ⑮.



- Remove the valve seat ⑯.



- Remove the following parts.

- ⑰ Main jet, main jet ring, needle jet holder and needle jet
- ⑱ Pilot screw
- ⑲ Starter jet
- ⑳ Pilot jet
- ㉑ Pilot air jet

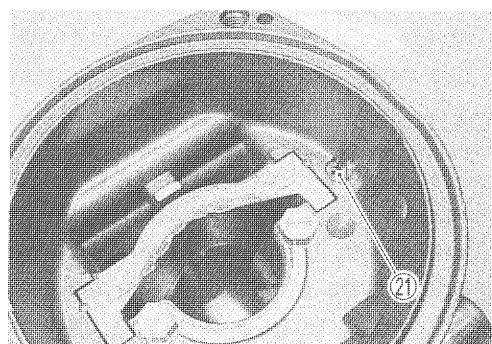
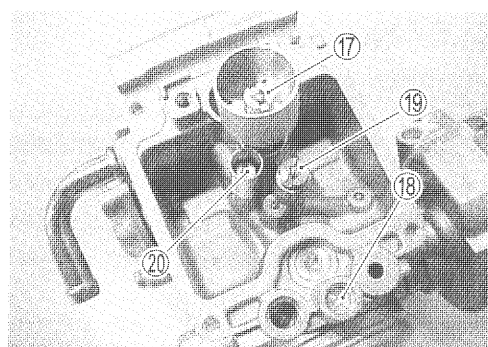
NOTE:

Before removing the pilot screw ⑱, its setting must be determined. Slowly turn the pilot screw clockwise and count the number of turns until it is lightly seated. Make a note of how many turns were made.

When reassembling the pilot screw, you will want to set it to its original position.

CAUTION

Do not use wire to clean the passageways, valve seat and jets. Used compressed air only.

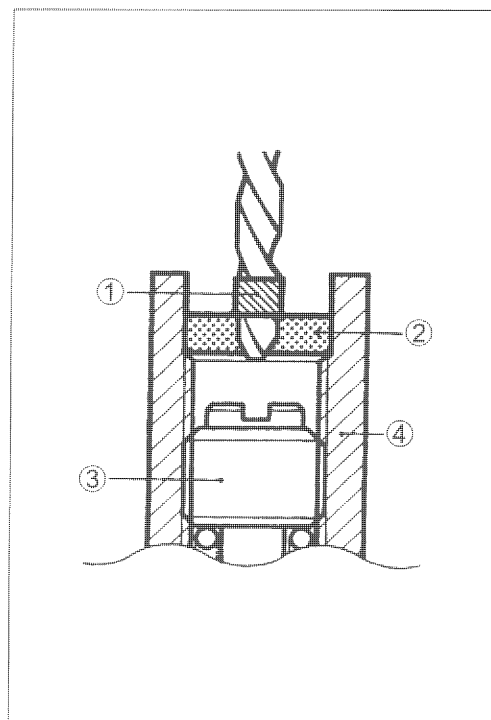


PILOT SCREW REMOVAL (For E-33)

Because harsh cleaning solvents can damage the O-ring seals in the pilot system, the pilot system components should be removed before cleaning.

- Use a 1/8" size drill bit with a drill-stop to remove the pilot screw plug. Set the drill-stop 4 mm (0.16 in) from the end of the bit to prevent drilling into the pilot screw. Carefully drill through the plug.
- Thread a self-tapping sheet metal screw into the plug. Pull on the screw head with pliers to remove the plug. Carefully clean any metal shavings from the area.
- Slowly turn the pilot screw clockwise and count the number of turns until the screw is lightly seated. Make a note of how many turns were made so the screw can be reset correctly after cleaning.
- Remove the pilot screw along with the spring, washer and O-ring.
- After cleaning, install the pilot screw to the original setting by turning the screw in until it lightly seats, and then backing it out the same number of turns counted during disassembly.
- Install a new plug by tapping it into place with a punch.

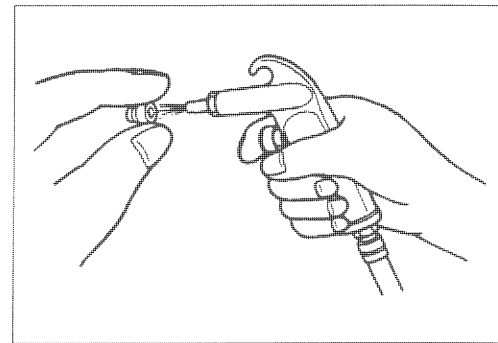
- ① Drill-stop
- ② Plug
- ③ Pilot screw
- ④ Carburetor body



CLEANING

⚠ WARNING

Some carburetor cleaning chemicals, especially dip-type soaking solutions, are very corrosive and must be handled carefully. Always follow the chemical manufacturer's instructions on proper use, handling and storage.



- Clean all jets with a spray-type carburetor cleaner and dry them using compressed air.
- Clean all circuits of the carburetor thoroughly – not just the perceived problem area. Clean the circuits in the carburetor body with a spray-type cleaner. If necessary, soak each circuit in a dip-type cleaning solution to loosen dirt and varnish. Dry the carburetor body using compressed air.

CAUTION

Do not use a wire to clean the jets or passageways. If wire is used, the jets and passageways may become damaged. If the components cannot be cleaned with a spray-type cleaner it may be necessary to soak the components in a dip-type cleaning solution. Always follow the chemical manufacturer's instructions for proper use and cleaning of the carburetor components.

- After cleaning, reassemble the carburetor with new O-rings.

CAUTION

Replace the removed O-rings with new ones.

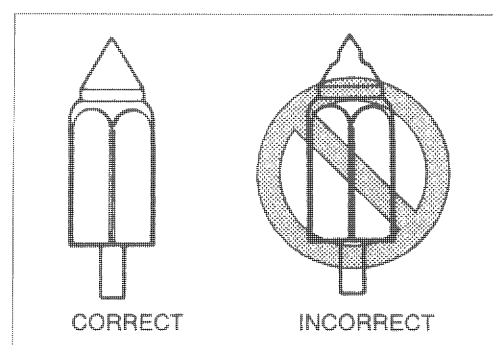
INSPECTION

Check the following items for any damage or clogging. If any damages are found, replace the damaged parts with new ones.

- | | |
|--------------------------------|----------------------------------|
| * Pilot jet | * Piston valve |
| * Main jet | * Starter jet |
| * Main air jet | * O-ring |
| * Pilot air jet | * Throttle valve |
| * Needle jet air bleeding hole | * Diaphragm |
| * Float | * Pilot outlet and by-pass ports |
| * Needle valve | * Vacuum hose |
| * Valve seat | * Air vent hose |
| * Jet needle | * Over flow hose |
| * Needle jet | |
| * Needle jet holder | |

NEEDLE VALVE INSPECTION

If foreign matter is caught between the valve seat and the needle valve, the gasoline will continue flowing and overflow. If the valve seat and needle valve are worn beyond the permissible limits, similar trouble will occur. Conversely, if the needle valve sticks, the gasoline will not flow into the float chamber. Clean the float chamber and float parts with gasoline. If the needle valve is worn as shown, replace and the valve seat with a new one. Clean the fuel passage of the mixing chamber using compressed air.

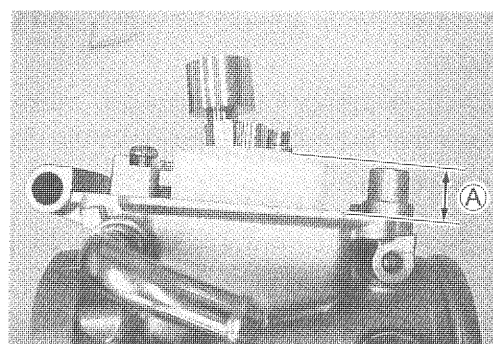


FLOAT HEIGHT ADJUSTMENT

To check the float height, turn the carburetor upside down. Measure the float height (A) while the float arm is just contacting the needle valve using vernier calipers. Bend the tongue as necessary to bring the float height (A) to the specified level.

TOOL 09900-20101: Vernier calipers

DATA Float height (A): 13.0 ± 1.0 mm (0.51 ± 0.04 in)



REASSEMBLY

Reassemble the carburetor in the reverse order of disassembly. Pay attention to the following points:

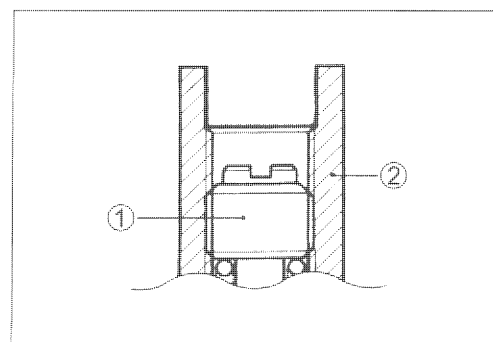
PILOT SCREW

- After cleaning, install the pilot screw ① to the original setting by turning the screw in until it lightly seats, and then backing it out the same number of turns counted during disassembly.

- ① Pilot screw
- ② Carburetor body

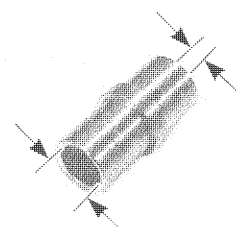
CAUTION

Replace the removed O-ring with a new one.



NEEDLE JET

- Install the needle jet with the smaller internal diameter portion of the jet facing to the jet holder.

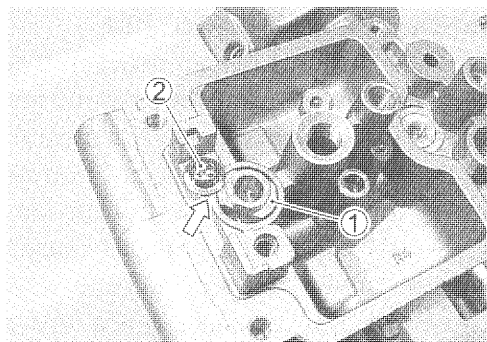


VALVE SEAT

- Install the valve seat ① into the carburetor body, and then tighten the screw ②.

NOTE:

Make sure that the collar of the screw ② holds the step of the valve seat ① securely.

**DIAPHRAGM**

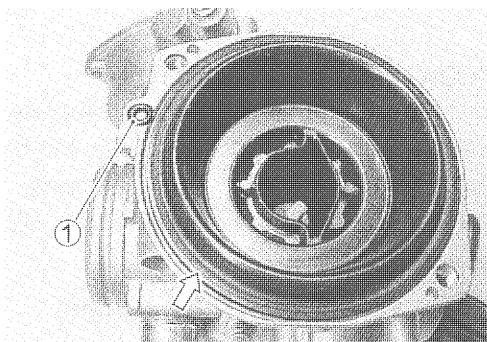
- Install the diaphragm assembly and O-ring ①.

NOTE:

When installing the diaphragm, make sure the diaphragm is seated at the concave section of the carburetor.

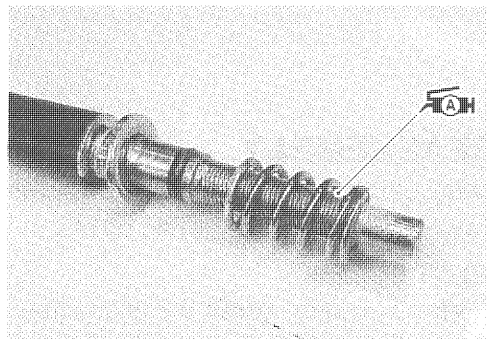
CAUTION

Replace the removed O-ring with a new one.

**THROTTLE STOP SCREW**

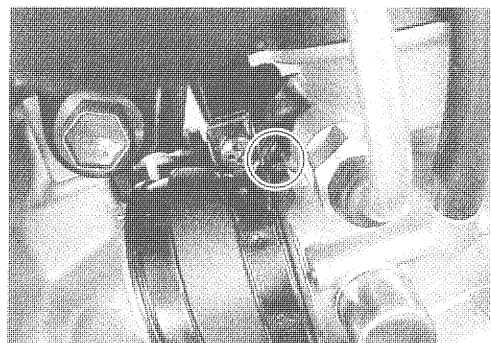
- Apply SUZUKI SUPER GREASE "A" to thread part of the throttle stop screw, then install the throttle stop screw to the carburetor.

 99000-25030: SUZUKI SUPER GREASE "A" (USA)
99000-25010: SUZUKI SUPER GREASE "A" (Others)

**REMOUNTING**

Remount the carburetor assembly in the reverse order of removal. Pay attention to the following points:

- Align the lug on the carburetor with the intake pipe's cutout.
- Connect the carburetor hoses properly. (➡ 8-15)



After the carburetor assembly has been remounted onto the engine, perform the following adjustments:

- * Throttle cable play ➡ 2-11
- * Engine idle speed ➡ 2-11