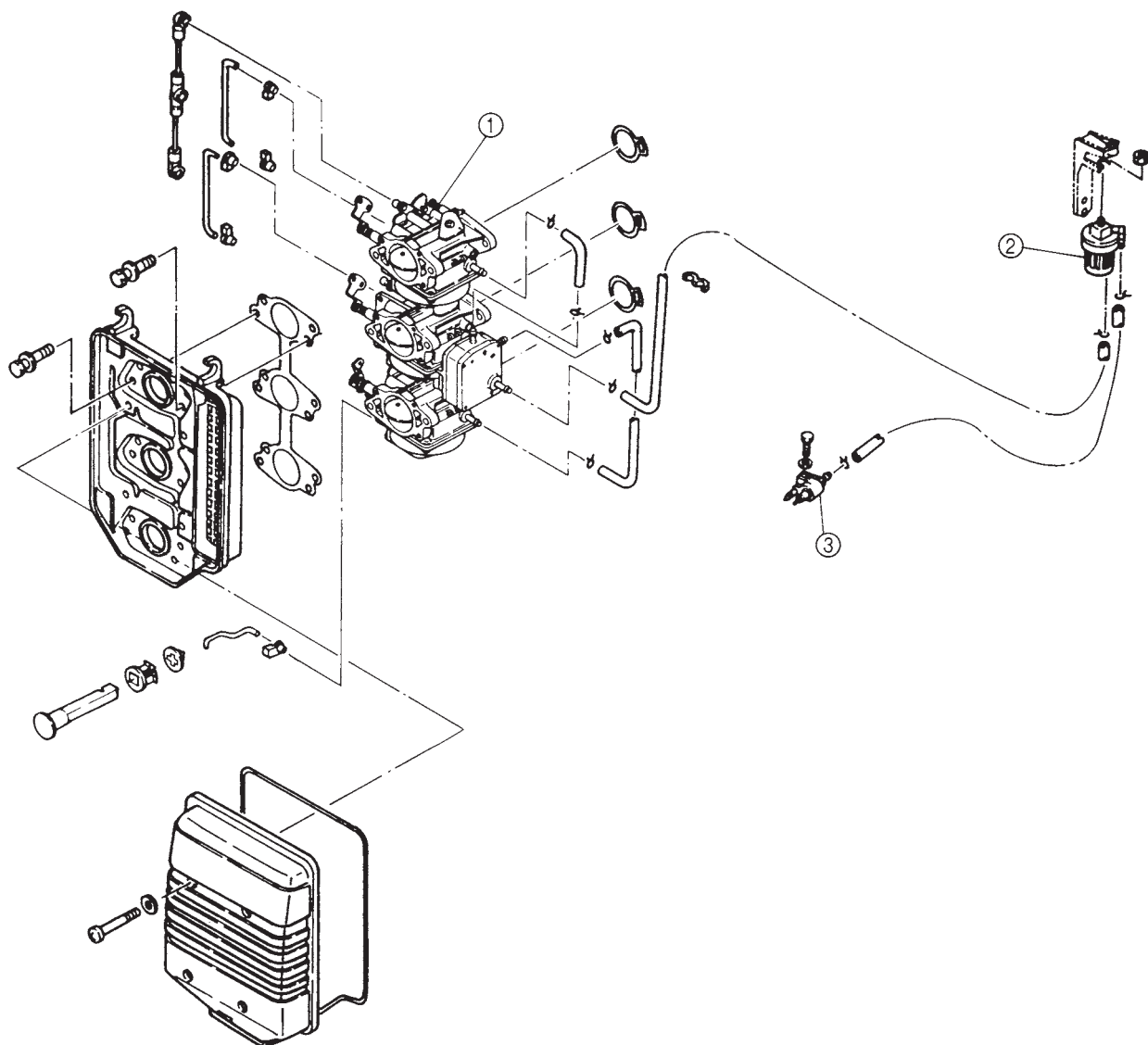




E20005-0

FUEL SYSTEM EXPLODED DIAGRAM

- ① Carburetor
- ② Fuel filter assembly
- ③ Fuel joint





E21510-0

REMOVAL

⚠ WARNING

- **Fire prevention**

Gasoline (petrol) is highly flammable. Petroleum vapor is explosive if ignited. Do not smoke while handling gasoline (petrol), and keep it away from heat, sparks, and open flames.

- **Ventilation**

Petroleum vapor is heavier than air and if inhaled in large quantities will not support life. Engine exhaust gases are harmful to breathe. When test-running an engine indoors, maintain good ventilation.

- **Spillage**

Remember that fuel remains in the fuel hose between the fuel joint and the fuel filter. Drain all remaining fuel out into a container, or soak it up with a cloth so that the fuel does not spill on to the bottom cowling.

- **Leaks**

Failure to check for and correct fuel leaks may result in fire or explosion.

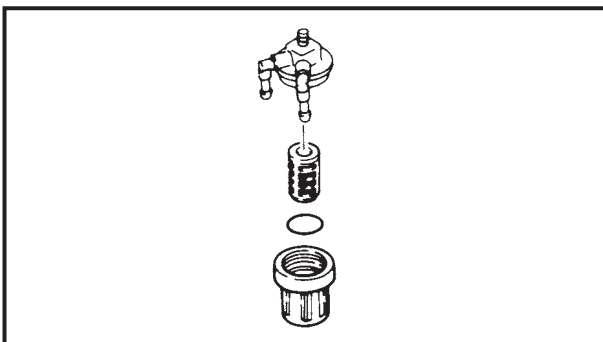
1. Referring to the exploded diagram, remove the fuel line.

E21010-0

CLEANING AND INSPECTION

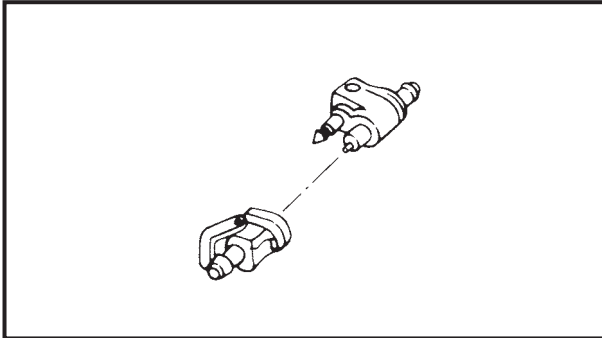
Fuel filter

1. First removing the filter-cup, disassemble the fuel filter.
2. Visually inspect the filter body for cracks or damage to the thread, and replace if required.
3. Using a soft brush and solvent, clean the filter element thoroughly. Inspect the filter element for breakage or distortion, and replace if required.





4. Using a soft brush and solvent, clean the filter-cup thoroughly. Inspect the filter-cup for cracks or thread damage, and replace if required.
5. Place the O-ring on the filter body, install the element, and screw in the filter cup.



Fuel joints

1. Inspect the fuel joints for leaks and cracks, and replace if required.

E22003-0

INSTALLATION

1. Referring to the diagram, install the fuel system.

Note the following points:

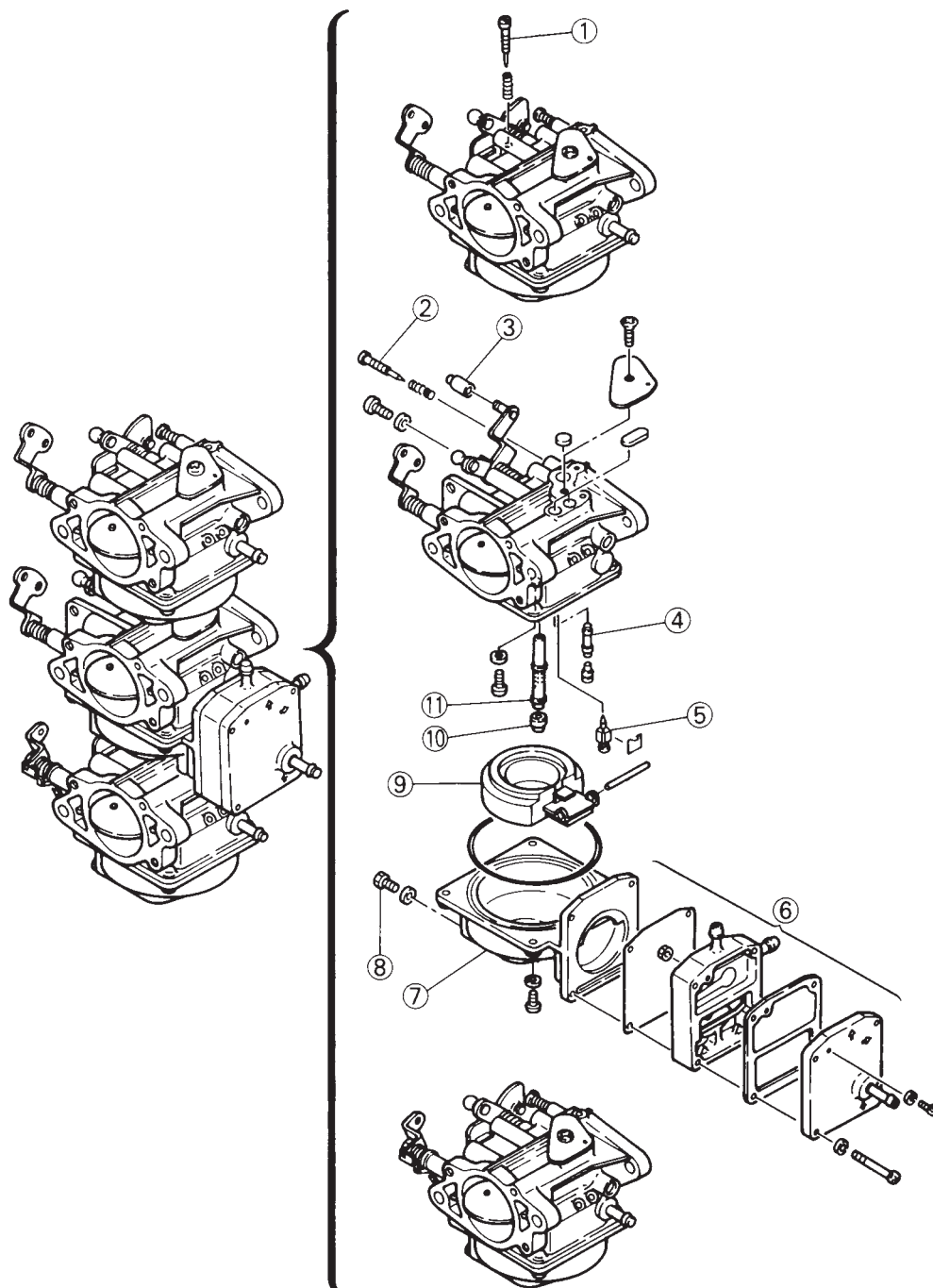
- When connecting the fuel hoses to the fuel filter, follow the direction of flow indicated by the embossed arrows.
- Place the clips in position, connect the hoses, and tighten the clips. Check for leaks.



E31100-0

CARBURETOR EXPLODED DIAGRAM

- | | |
|-----------------------|---------------|
| ① Throttle stop screw | ⑧ Drain screw |
| ② Pilot screw | ⑨ Float |
| ③ Collar | ⑩ Main jet |
| ④ Pilot jet | ⑪ Main nozzle |
| ⑤ Needle valve | |
| ⑥ Fuel pump | |
| ⑦ Float chamber | |





E31000-0

REMOVAL AND DISASSEMBLY

⚠ WARNING

At this step, ensure there is no spillage of gasoline (petrol) on removing the connections.

1. Remove the silencer cover, disconnect the fuel hoses and links, then remove the carburetor.

2. Referring to the diagram, use a screwdriver to disassemble the carburetor.

3. Using solvent, clean the components thoroughly, and blow-dry them with compressed air.

⚠ WARNING

Protect your eyes with suitable safety spectacles or safety goggles when using compressed air. Protect your eyes and the eyes of other persons by directing the flow of compressed-air downward, noting that solvent and small parts may be blown off.

CAUTION:

Do not use steel wire for cleaning the jets as this may enlarge the jet diameters and seriously affect performance.

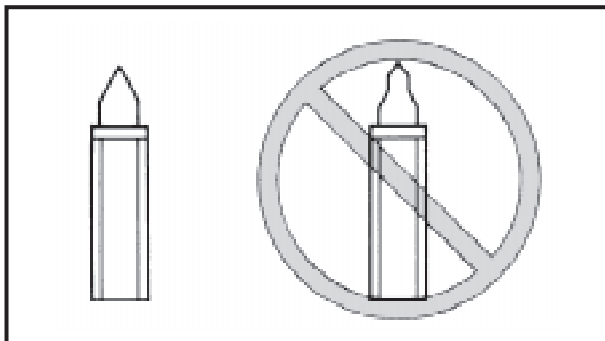


E32002-0

INSPECTION

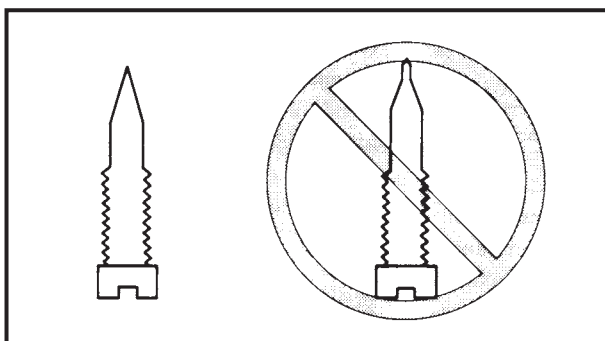
Carburetor body

1. Inspect the carburetor body for cracks or clogging of the passages.



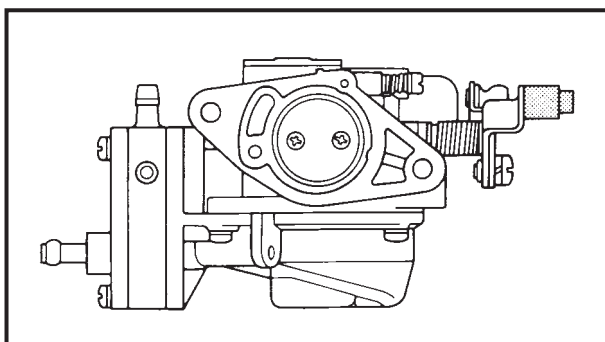
Needle valve

1. Inspect the needle valve for free movement and wear, and replace if required.



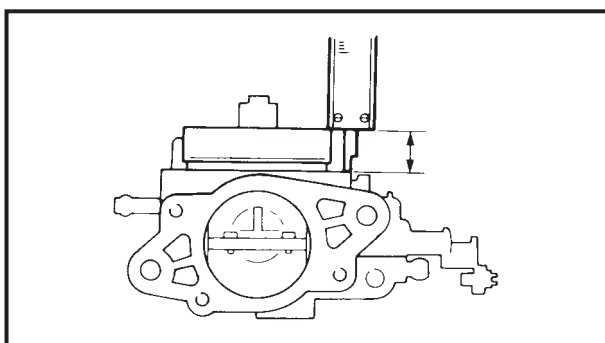
Pilot screw

1. Inspect the needle valve for wear, and replace if required.



Collar

1. Inspect the collar at the end of the accelerator-arm for wear, and replace if required.



Float

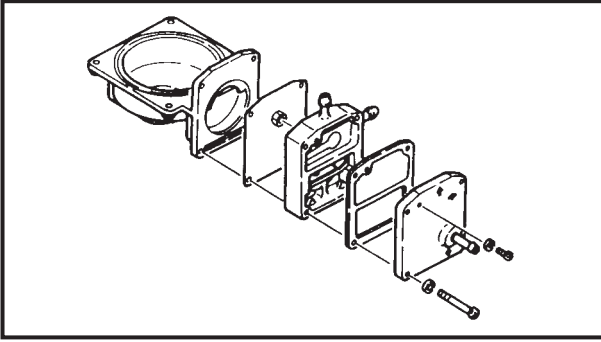
1. Visually inspect the float for damage or cracks, and replace if required.
2. Measure the float height. If it is more than 1 mm (0.039 in) greater or less than the specified float height, replace the valve seat and needle-valve.



Float height:

25hp: 16 ± 0.5 mm
(0.63 ± 0.02 in)

30hp: 15 ± 0.5 mm
(0.59 ± 0.02 in)

**Fuel pump**

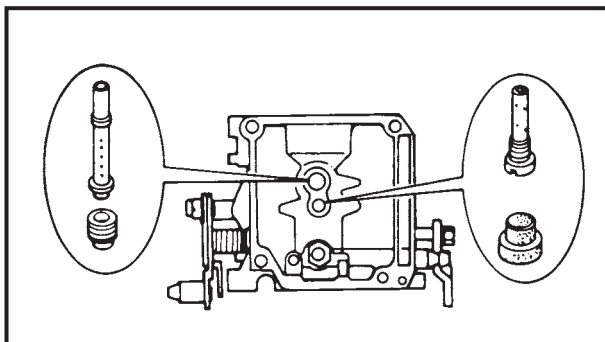
1. Using a screwdriver, disassemble the fuel pump.
2. Visually inspect the pump body for cracks, and replace if required.
3. Inspect the valves for cracks or distortion, and replace if required.
4. Inspect the diaphragm for sign of damage, perforation or stretching, and replace if required.



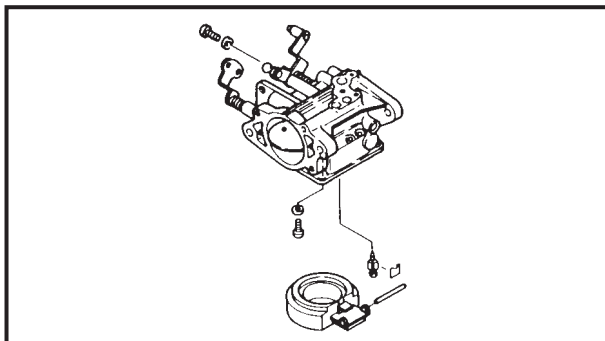
E33003-0

ASSEMBLY

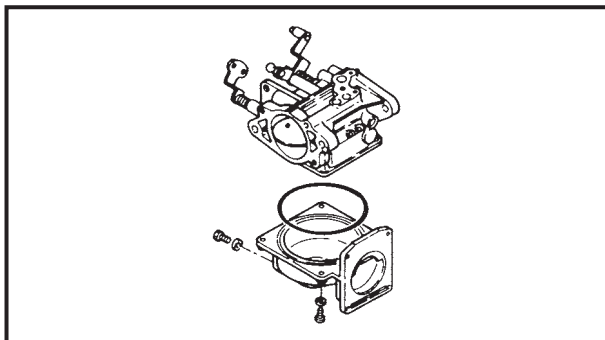
1. Insert the main nozzle fully, and screw in the main jet until tight.
2. Screw in the pilot jet fully, and install the cap.



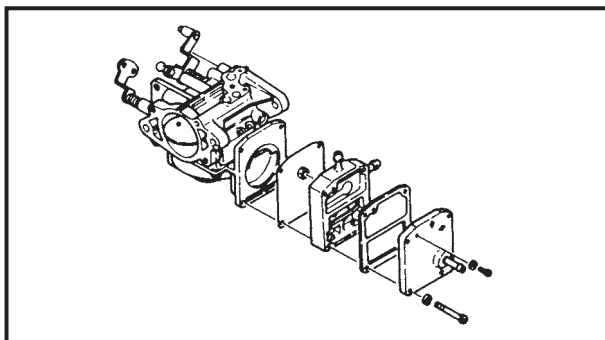
3. Install the needle-valve on the float, attach the float to the carburetor body with the float-pin, and tighten the screw.



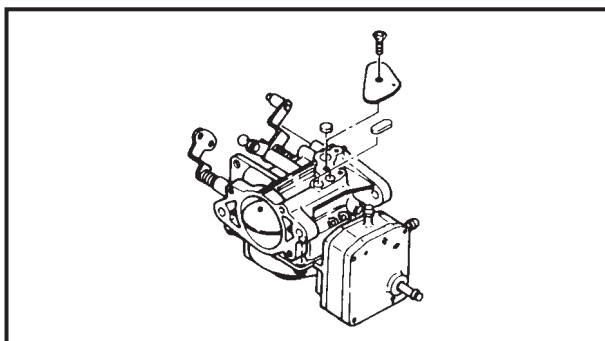
4. Install a new gasket to the float-chamber, install it to the carburetor body, and secure with the screws.

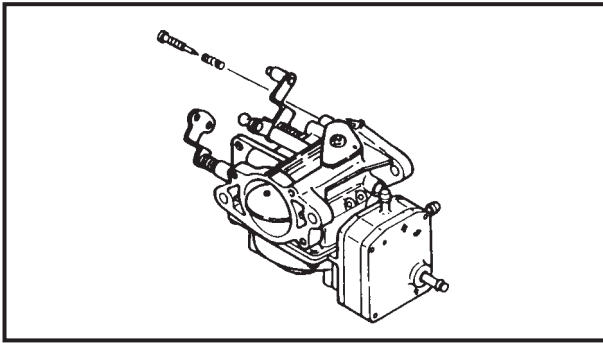


5. Install the diaphragm, body, cover, with the new gasket, and secure with the screws to the carburetor.



6. Install the plates, with the packing and secure with the screw to the carburetor.





7. Install the pilot-screw with its spring, screw it in tight and then screw it back the specified number of turns out.

CAUTION:

Do not cause damage to the tip of the pilot screw by over-tightening it.

**Pilot screw:**

25hp: $3/4 \pm 1/4$

30hp:

#1: $3/4 \pm 1/4$ turns out

#2: $1-3/4 \pm 1/4$ turns out

#3: $1 \pm 1/4$ turns out

E34004-1

INSTALLATION

1. Install the carburetors and plate with new gaskets.
2. Connect the fuel hoses to the carburetors, and fit the hose-clips over the recesses to ensure leak-proof connections.
3. Connect the choke link-rods, choke lever and accelerator-lever rod to each carburetor.
4. Connect the oil-pump link-rod to the carburetor and oil-injection pump.