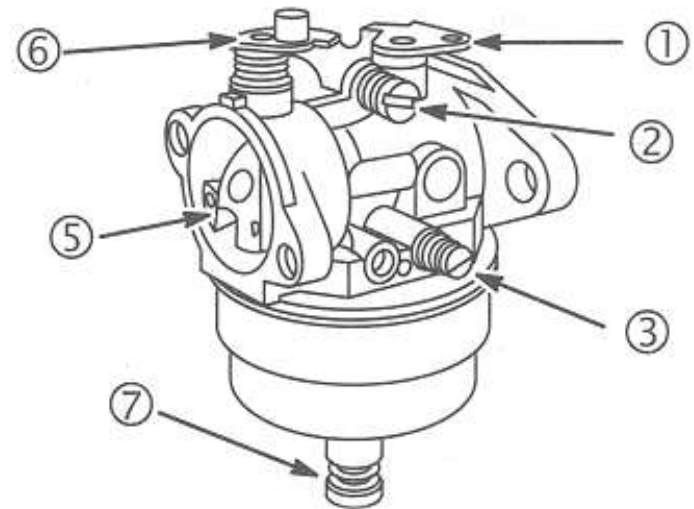


Carburetor Types

- Briggs and Stratton uses many different types of carburetors for their many different types of small gas engines
- The principal of operation of each is the same but there are many variations

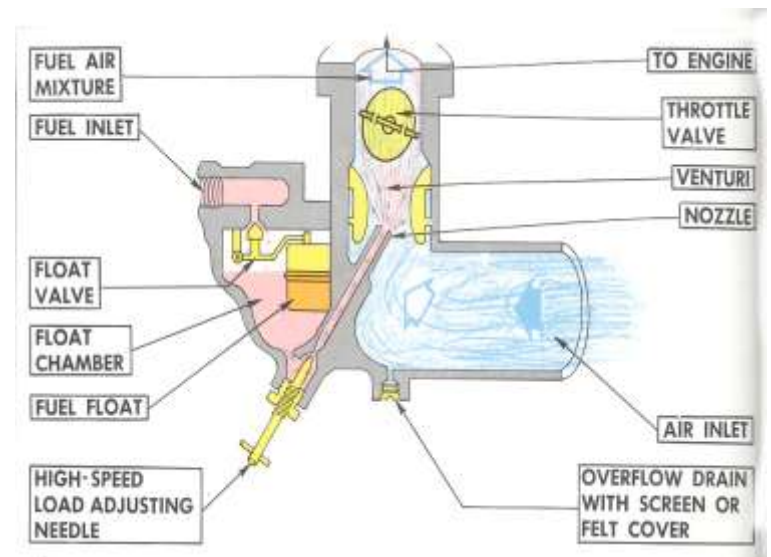


Carburetor Types

- There are basically three different types of carburetors used in small gas engines depending on how fuel is supplied from the tank to the fuel chamber in the carburetor.
 - ✚ The Float Type
 - ✚ The Suction – Lift Type
 - ✚ The Diaphragm Type

The Float Type

- These are so called because the fuel level in the fuel chamber is maintained by a float – controlled valve.
- There are several different styles of float-type carbs such as Updraft and, Side-draft types

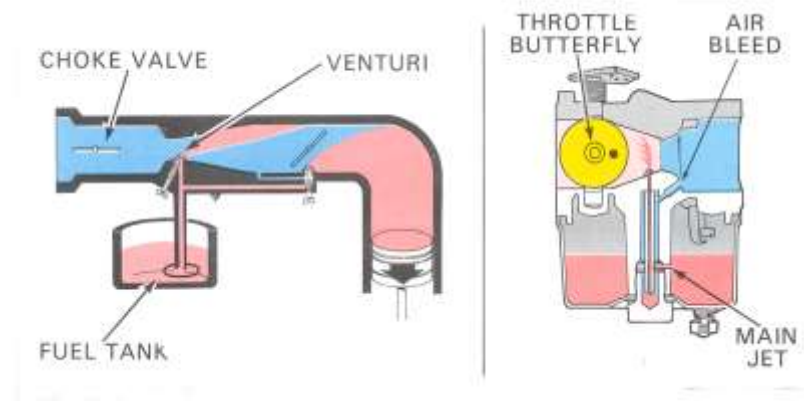


The Float Type

- The float type carburetor has features which provide for adjustment and regulation of the fuel air to meet different operating conditions.
- When a sudden load or acceleration is demanded , a richer mixture (more fuel-air) is required
- These carburetors have what is called an accelerating well that surrounds the lower part of the fuel discharge nozzle and remains full of fuel while the engine is operating under normal load.
- When there is a sudden demand for power a governor opens the throttle valve and air moves past the nozzle much faster thus picking up more fuel

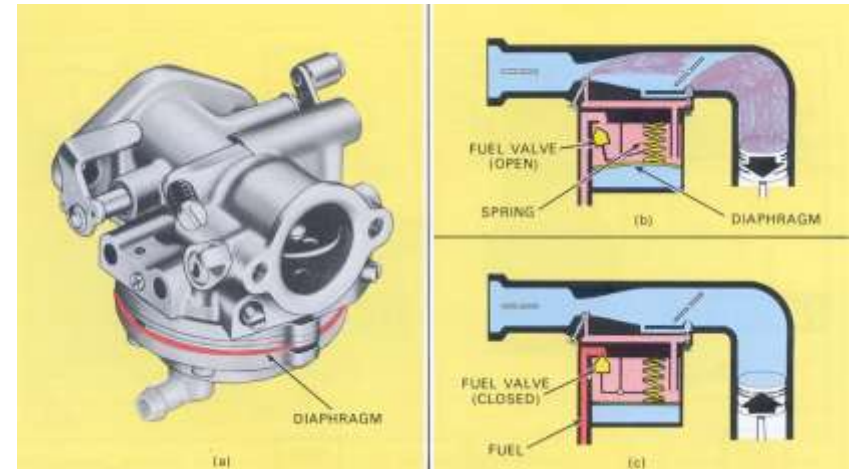
Suction-Lift Carburetor

- This type is usually mounted on the top of the fuel tank.
- Vacuum from the engines intake stroke causes a low pressure in the venturi.
- Atmospheric pressure forces fuel up through the tube into the low pressure area of the venturi and then into the engine.
- This type of carburetor will not work with larger engines and tanks



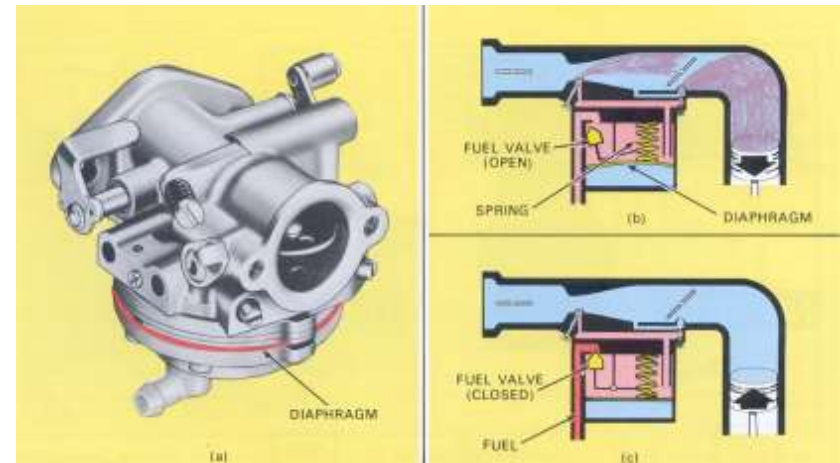
Diaphragm – Type Carburetor

- This type uses a spring-loaded diaphragm for regulating the fuel flow into the carburetor fuel chamber
- The diaphragm serves the same purpose as a float in the float type carb.



Diaphragm – Type Carburetor

- The main difference between this and the float type is that the use of the diaphragm carburetor will allow the engine to work on any angle. For this reason the diaphragm type is used a lot in multi-positional engines.



Governors

- Where the load on the engine varies but a steady speed is required (lawn mower) an engine governor is needed to prevent the engine from bogging down. The governor basically controls the opening of the carburetors throttle valve.
- When the load is light, the engine starts to speed up. As this happens, the governor causes the throttle valve to move toward the closed position. If the going gets heavy (ie the lawn mower meets some tall weeds) the governor causes the throttle valve to open.

Governors

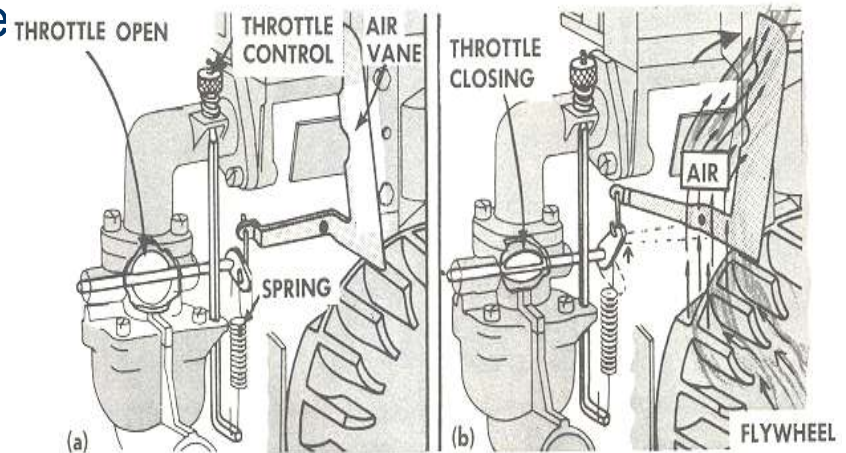
- There are basically two types of governors in use on small gas engines and they are;

⊕ ***Air Vane Type***

⊕ ***Centrifugal Type***

Governors

- The air vane type works on the flow of air coming from the blades of the flywheel, it is placed in the pathway of the air coming off the flywheel.
- It is connected through linkages to the throttle valve. As the air flow off the flywheel increases it causes the air vane to move



Governors

- The centrifugal type is actuated by the engine speed. It is linked to the throttle through an arm and a rod.
- As the engine speeds up the governor arm is turned and this tends to close the throttle

