

b. Automatic Fuel Tap

When the H Series automatic fuel tap is turned to the **ON** or **RES** position, gasoline flows to the carburetor only when the engine is running, and shuts off when the engine stops. In the **PRI** (Prime) position the automatic shut-off valve is bypassed, allowing continuous gasoline flow.

Fuel flow from the main pipe to the filter bowl follows different paths, depending on the position of the fuel tap lever.

- ON 1 → 2 diaphragm fuel passage → filter bowl
- RES 3 → 2 diaphragm fuel passage → filter bowl
- PRI 3 → 4 filter bowl

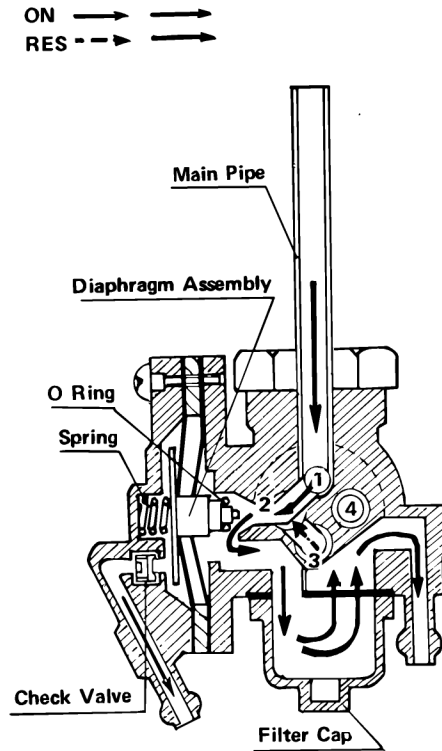
The gasoline that enters the filter bowl, or sediment bowl, is filtered and sent through the fuel pipe connections to each carburetor. The automatic valve in the fuel tap operates as follows: When the engine is started, negative pressure (vacuum) is created at the carburetor due to engine intake. A vacuum line is connected from the carburetor to the diaphragm cover, so that vacuum is felt at the outside of the diaphragm transmitted through the check valve. The vacuum pulls the diaphragm against its spring pressure, and the O ring at the other end of the diaphragm assembly is pulled out of its seat, allowing fuel passage between the O ring and seat. When the engine stops and vacuum is lost, air enters the diaphragm vacuum chamber through an air vent to the outside of the fuel tap, bringing chamber pressure back up to atmospheric pressure and allowing the diaphragm spring to push the diaphragm back into place and hold the O ring against the seat. This air vent is open at all times but due to its small size, the vacuum line keeps pumping a negative pressure in the chamber faster than the air vent can let air in to equalize it.

At different fuel tap lever positions, the fuel from the tank is taken from different places. With the lever in the **ON** position, fuel is taken out of the tank through a pipe extending up into the tank from the fuel tap. When the gasoline level drops below the level of the top of the pipe, fuel can no longer enter the tap and the remaining gasoline in the tank forms the reserve supply (about 3/4 U.S. gal, or 3 liters). With the lever in the **PRI** (prime) or **RES** (reserve) positions, fuel intake to the tap is from the bottom of the

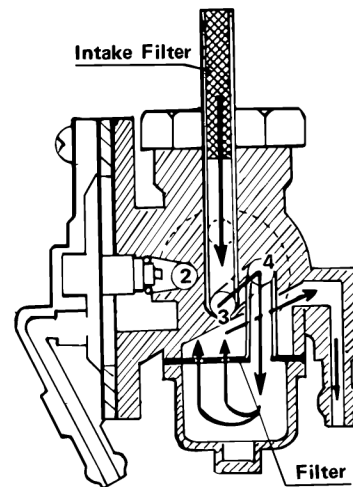
tank and gasoline can be used until the tank is completely empty.

Fuel Tap

364

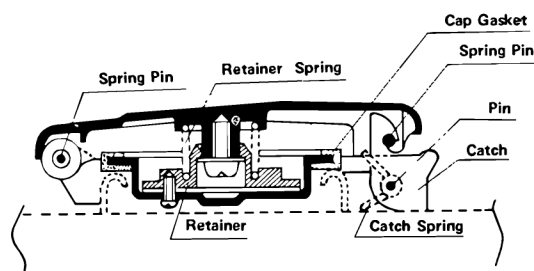


PRI Position



Snap-shut Tank Cap

363



Screw-type Fuel Tank Cap

365

