

Showing Method of Spark and Carburetor Control Installed on Models RD-12 and 13.

“drops” into position with maximum spark retard—speed control lever set to “stop.”

FUEL TANK—PRESSURIZED

The fuel tank is of simple but rugged construction—capacity 5 gallons—plug oil content. It contains the pump (for filling carburetor bowl), fuel level float and gauge, pressure relief valve, connections for fuel and air lines as well as a bracket arrangement around which the fuel line is coiled when not in use and a carry grip.

The pump employs the use of a diaphragm flexing in a small housing to force fuel to the carburetor for starting purposes—necessary only when pressure has been released from the tank for refilling or as a result of standing idle for some time. Two check valves are required—one for intake and another for discharge as in any conventional pump. A screen is installed to avoid entrance of foreign matter.

Failure to pump in most instances will be the result of a fractured or improperly installed diaphragm which is easily replaced, or a “clogged” screen. Like service operations on the power head or gearcase, they must be well performed, with care and same degree of carefulness.

Observe assembly prior to doing the job—dismantle and reassemble in reverse order. Install required new parts. Lap sections of the pump housing to insure flatness, if necessary.

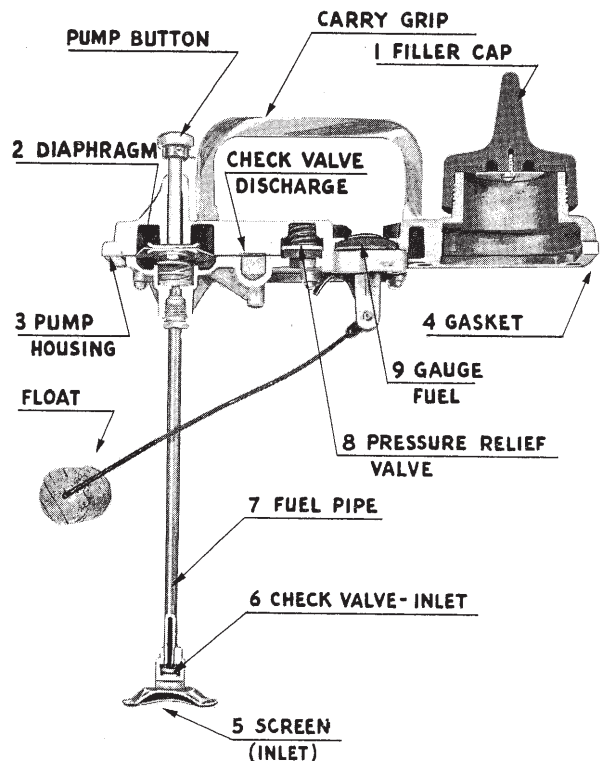
When replacing the diaphragm, apply a thin coat of hard drying cement (Sealer 1000) around the hole in both cupped washers—diaphragm contact side. Purpose is to eliminate possible seepage at this point. Note holes in diaphragm and corresponding holes in the pump housing—assemble so all line up. This is important. Do not neglect re-

placing the discharge check valve disc and be certain same is not “cocked” and off its seat on assembly. The intake check valve is installed above the screen at lower end of the suction pipe as shown. Be careful not to wrinkle the diaphragm when bolting sections of the housing together (see that bolt holes line up and that diaphragm does not overlap). Result is failure of the pump to operate and leakage to interfere with functioning of the tank. Similarly, the gasket between the pump assembly and tank must be in place and in good condition to avoid possibility of air leaks.

The pump should be used only when the carburetor float bowl is empty—as indicated by little or no resistance when depressing the pump button, except that set up by tension of the spring in the assembly. Float valve (in carburetor) closes as the bowl fills and closes entirely when filled to progressively build up resistance to pumping. Under no circumstance force the pump (depressing of pump button four to five times should be sufficient to fill the bowl)—the diaphragm is apt to be fractured.

Leaks in the assembly are indicated by failure of the pump and often by fuel seepage around the tank cover. In some instances, the motor cannot be operated without necessity of constantly pumping fuel (fuel pump); in others, seepage may be slight, requiring manual pumping only at higher speeds. Seepage of fuel mixture around the pump shaft is evidence of an improperly installed or a faulty diaphragm.

FUEL TANK — CHECK CHART



Showing Pump Mechanism and Gauge as Attached to the Fuel Tank.