

VACUUM TANK TROUBLES

Failure of the gasoline supply or excessive fuel consumption in many instances may be traced to dirty vacuum tanks or improperly operating vacuum tank valves.

Occasionally, when driving with a wide open throttle, popping may occur in the carburetor due to insufficient vacuum to keep the vacuum tank filled. This ordinarily may be stopped by releasing the accelerator or closing the throttle for a second to allow the tank to fill. If it continues to a marked degree, examine the valves of the vacuum tank.

If the gasoline supply fails, make sure that there is plenty of gasoline in the main supply tank. Close the throttle and turn the engine over several times with the electric starter, or by hand, which should fill the vacuum tank.

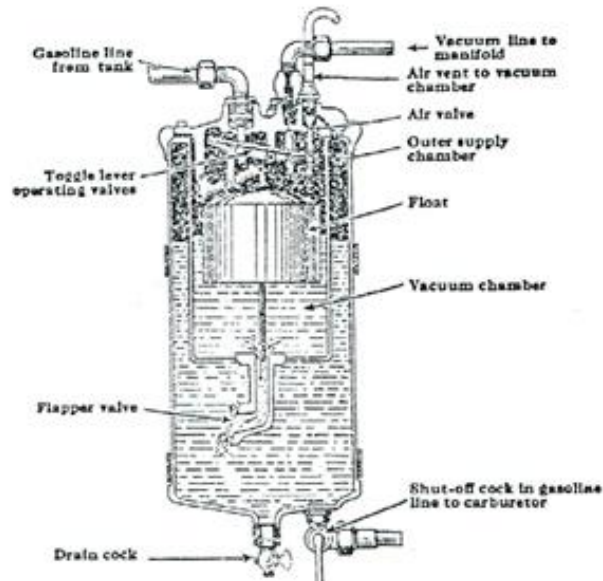


Fig. 1. Cross Section of Vacuum Tank

Open the drain cock or disconnect the gasoline line below the vacuum tank. If any quantity of gasoline runs out it may be concluded that the tank is functioning properly.

If the car has not been operated for some time and the vacuum tank has been drained, some fault may be experienced when attempting to start the engine, due to the flapper valve being dry.

Remove the pipe plug in the top of the vacuum tank and pour one-half pint or more gasoline directly into the vacuum chamber. This will wash off any sediment that may have collected on the flapper valve and will wet the valve enabling it to seat more closely.

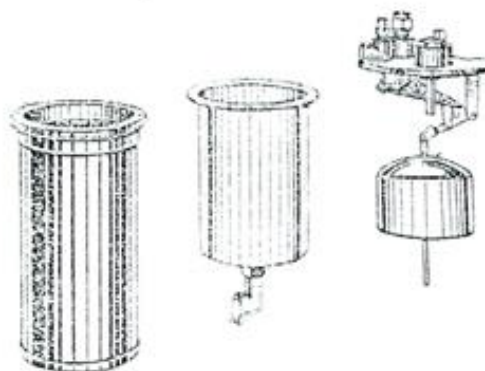


Fig. 2. Three Units of Vacuum Tank as Separated by Removing the Cover Retaining Screws. They are: the Outer Chamber or Tank, the Inner or Vacuum Chamber and the Head and Valves

Should the tank fail to function properly after this has been done, disconnect the gasoline line leading to carburetor and drain the tank. Hold a finger over this tube and over the vent tube (see Fig. 1). If a continuous suction is felt through either tube when the engine is operated or turned over with the throttle closed, this may be taken as an indication that the flapper valve is not seating properly and that air is being admitted from the reservoir to the upper vacuum chamber through the flapper valve.

To clean the valve remove the inner chamber by taking out the eight cover retaining screws, and after removing the vacuum chamber and head remove the flapper valve by taking out the two small retaining screws and spacers. Hold the flapper valve on one finger, as shown, and remove any collection of dirt or carbon that may be on the surface of the valve, with a very smooth flat file. Do not use sandpaper or emery paper, as this has a tendency to make the seat irregular. With very light pressure on the valve the file may be pushed across it in one direction, the valve turned through a fraction of a turn and the operation repeated. Inspection will disclose the nature of the seat.

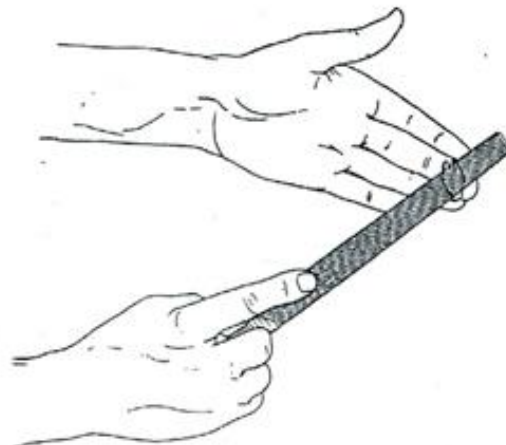


Fig. 3. In Cleaning the Flapper Valve It Should be Done so as to Retain a Perfect Seat

If there is any collection of dirt on the seat upon which the flapper valve seats this should be removed with a file in the same manner, but extreme care should be used to leave the surface perfectly flat and smooth.

Flooding of the vacuum tank will result from a leaky float. This causes excessive gasoline consumption and loading of the engine at nearly any speed. To repair the float, remove the top casting of the tank by removing the eight retaining screws. To locate leaks in the float, immerse in hot water. Bubbles will indicate the escape of air. Punch a hole in both the top and bottom of the float and drain out all gasoline or water and solder up the openings made, also the original leak. Do not use an excessive amount of solder as this will increase the weight of the float. The float should be tested after soldering.

Particular care should be used to see that the cork gaskets at the top of the tank are not damaged on removal of the head or vacuum chamber. These are put on with shellac, and if they are loose they should be coated with new shellac before being reinstalled. If they are broken they should be replaced with new perfect gaskets.

Proper operation of the toggle-operated valves is essential. Check their operation when the head is removed. If the levers are bent or the spring broken they should be replaced. The two valves should seat perfectly.

Tanks should be cleaned periodically by introducing gasoline through the plug at the top, after opening the drain cock or disconnecting the gasoline line to the carburetor. This will flush out any sediment that may have collected in the bottom.