FORD MOTOR CO. DISTRIBUTOR VACUUM VENT VALVE

DESCRIPTION

Some engines require a Distributor Vacuum Vent Valve. The functions of this valve are to prevent fuel migration to the distributor vacuum advance diaphragm and to act as a spark advance delay valve. The valve helps control exhaust emissions by delaying vacuum advance during light acceleration and by "dumping" vacuum to eliminate vacuum advance during heavy acceleration, decelertion and idle. Although these valves were intended for use in a specific system with an air cleaner mounting, they may be used in other vacuum systems.

NOTE – *Valve must be mounted with ports mounted downward.*

OPERATION

When spark port vacuum is applied to the vent valve diaphragm, the dump valve closes, the check valve opens and the distributor diaphragm begins to evacuate through the sintered metal restrictor. At the same time, any fuel in spark port line is evacuated. The sintered metal restrictor located in the vent valve diaphragm acts as a spark delay valve slowing spark advance.

When spark port vacuum decreases, the check valve closes and the dump valve opens the distributor vacuum line to atmosphere. Venting the distributor line prevents fuel migration to the distributor diaphragm and returns the distributor to zero vacuum advance.

TESTING

1) Connect vacuum gauge to body port (distributor source) with engine warmed up enough to open any ported vacuum switches or thermal vacuum switches in the system. Accelerate engine to fast idle and hold. Vacuum should show a gradual increase. Return engine to idle and gauge should register zero within a few seconds. If not, replace valve.

2) If checking valve with direct manifold vacuum to vacuum signal port, gauge should register steady vacuum at idle and zero vacuum when hose is disconnected at manifold source. If not, replace vacuum vent valve.

NOTE – *Some engines also incorporate a fuel-vacuum separator in distributor vacuum lines to prevent fuel from migrating to the distributor vacuum motor. It may also be used on amplified EGR systems to prevent fuel from reaching the vacuum amplifier.*

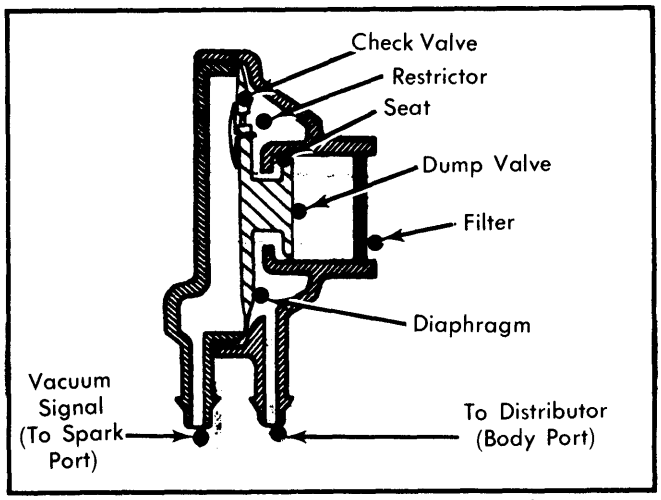

Fig. 1 Distributor Vacuum Vent Valve