Fuel Evaporation

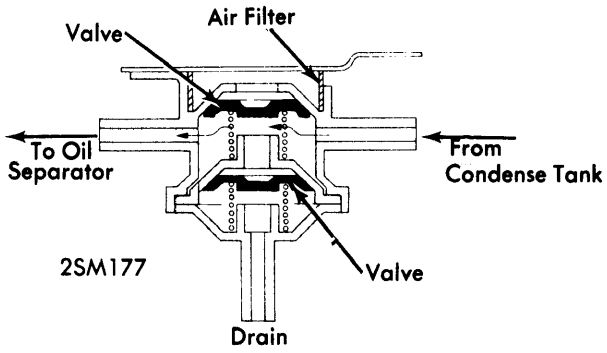
MAZDA (ROTARY ENGINE)

Mazda R-100 (1971)
Mazda RX-2 (1971-73)
Mazda RX-3 (1972-73)

DESCRIPTION

System prevents escape of fuel vapors into the atmosphere. Components consist of a non-vented fuel tank, a condense tank, a charcoal filled canister and hoses which connect the components. In addition, RX-2 models have a check valve located between condense tank and ventilation valve.

NOTE — On R-100 models, vapor line from condense tank goes directly to canister rather than to ventilation valve as shown in illustration. All other connections are identical between the two models.



EVAPORATIVE EMISSION CHECK VALVE

OPERATION

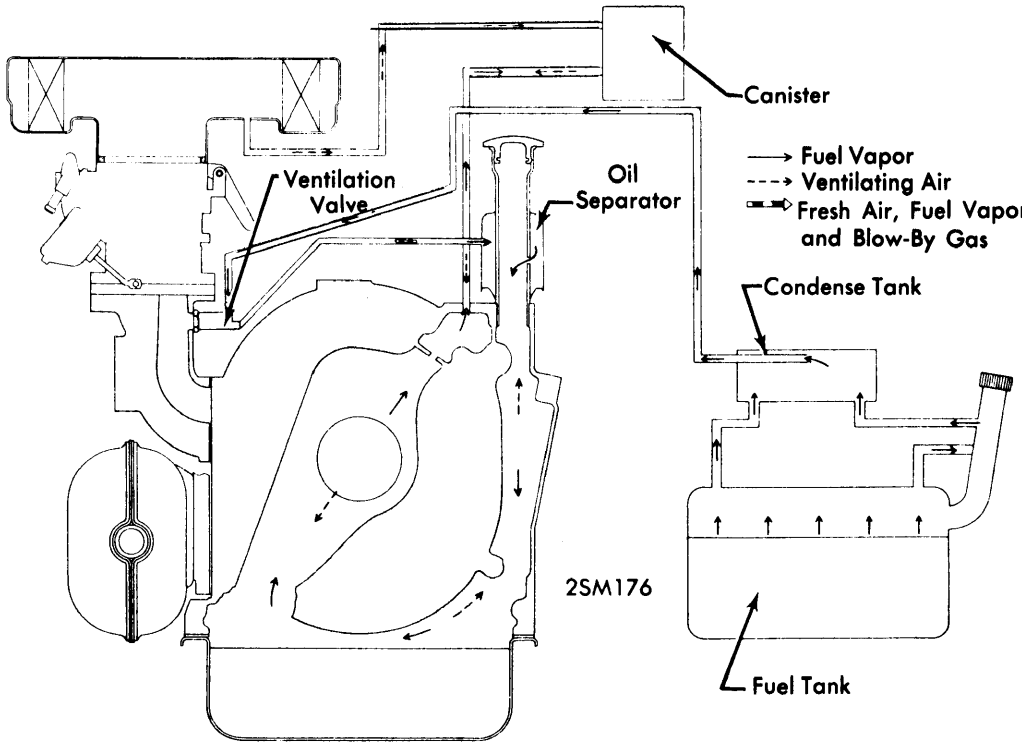
Engine Running — Fuel vapor trapped in the canister is released into the intake manifold and together with fresh air from the air cleaner, is drawn into the engine to be burned in the combustion chambers. The canister is continually being purged by fresh air during engine operation.

Engine Not Running — Some of the fuel vapor generated in the fuel tank does not condense in the condense tank and is routed into the engine (through the crankcase ventilation valve) air spaces, and into the carbon canister. The vapors are adsorbed by the canister and remain here until starting the engine purges the canister.

Check Valve Operation — If fuel system is normal, the vapors continue straight through the check valve from the condense tank to the ventilation valve. If condense tank to ventilation valve connecting pipe is clogged, check valve operates to provide ventilation to atmosphere. Valve also provides a safety release in case of pressure build-up in the fuel tank due to heat expansion.

MAINTENANCE

Check entire system for proper functioning every 12,000 miles. All hoses should be checked for any signs of deterioration. Check canister and check valve for proper operation every 12,000 miles and replace as required.



EVAPORATIVE EMISSION CONTROL SYSTEM