

1966-74 PONTIAC CLOSED SYSTEM

DESCRIPTION

A "closed" positive crankcase ventilation system is used on 1966-67 California vehicles and on all 1968 and later vehicles. System consists of a PCV valve connected by a hose to intake manifold, a sealed oil filler cap and various hoses and connections.

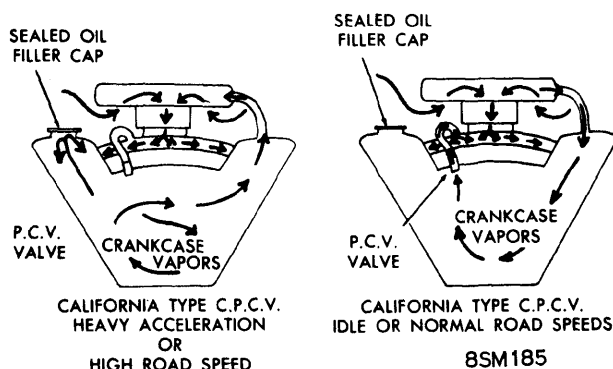
OPERATION

At idle or normal road speeds, intake manifold vacuum causes fresh air to be drawn into air cleaner, at same time, fresh air is routed from air cleaner through hose connecting it to rocker arm cover and on into crankcase where it mixes with crankcase vapors. This mixture is drawn through PCV valve and into intake manifold where it mixes with normal air/fuel charge and is later burned. At high road speeds or heavy acceleration, engine blow-by is increased, at same time, intake manifold decreases. When this occurs crankcase vapors are routed through connecting hose from rocker arm cover and into air cleaner. This mixture joins normal air charge and passes through carburetor and into intake manifold. Should a backfire occur, PCV valve is closed by spring tension preventing fuel vapors from entering crankcase.

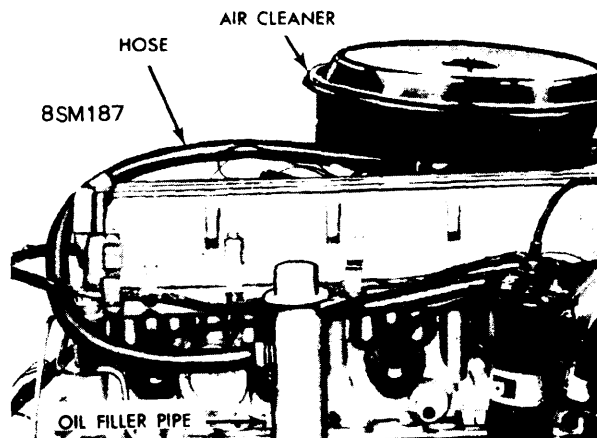
SERVICE PROCEDURES

To insure proper operation of positive crankcase ventilation system it should be serviced every 12 months or 12,000 miles (1966-70) or every 24 months or 24,000 miles (1971-74). Disconnect all hoses and blow them out with compressed air. If any hose cannot be freed of obstructions, replace with new hose. Remove PCV valve from rubber grommet. If engine is equipped with a crimped-type valve no further disassembly is possible and a new valve should be installed. Clean crankcase and intake manifold connectors using care not to allow dirt to enter openings. Replace ventilation filter in air cleaner. Inspect polyurethane air filter element at 12,000 miles or 12 months; clean (polyurethane) or replace (paper) element at 24 months or 24,000 miles (12,000 miles for 6 cylinder engines). Reinstall positive crankcase ventilation system and adjust carburetor idle to manufacturers specifications.

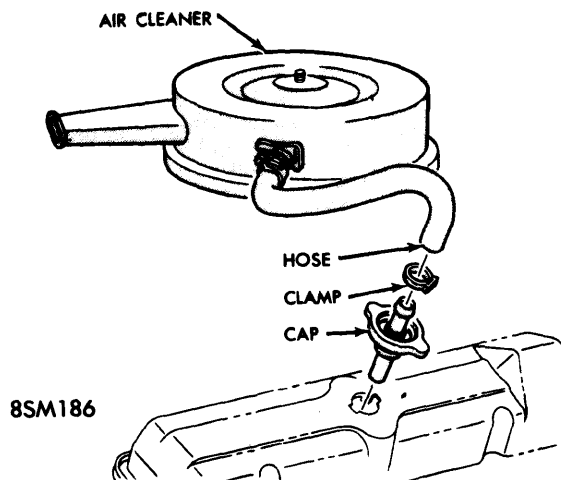
PCV Valve Check - Use following procedure for determining condition of PCV valve without removing it from engine. Pinch off hose from valve and note drop in engine RPM. If RPM drop on 1966 models is less than 15 RPM, valve should be replaced. On 1967-74 models, remove valve and block opening of valve. Note drop in engine RPM. If drop is less than 50 RPM, valve should be replaced.



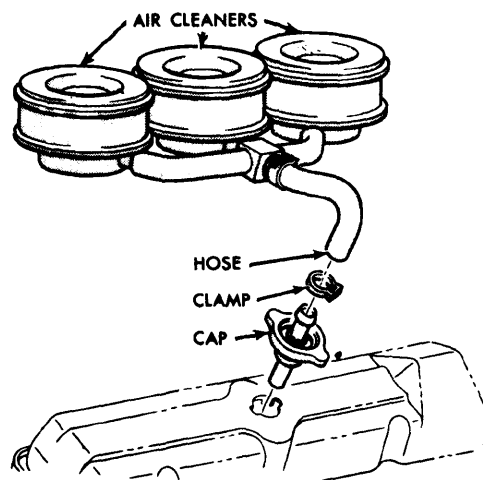
CLOSED POSITIVE VENTILATION SYSTEM AIR FLOW



CLOSED POSITIVE VENTILATION SYSTEM HOSE CONNECTIONS (OHC-6)



2-BBL. & 4-BBL. CARB. ENGINES



TRI-CARB. ENGINES

CLOSED POSITIVE VENTILATION HOSE CONNECTIONS