1966-74 OLDSMOBILE CLOSED SYSTEM

DESCRIPTION

1966-67 California vehicles and all 1968 and later vehicles are equipped with a "closed" positive crankcase ventilation system. This "closed" system consists of a PCV valve controlled by intake manifold, a sealed oil filler cap and various hoses and connections between crankcase and intake manifold, and between air cleaner and crankcase. Differences between systems used on 6 and 8 cylinders are as follows:

1966-67 Six – These 6 Cyl. engines have a flame arrestor located in air cleaner.

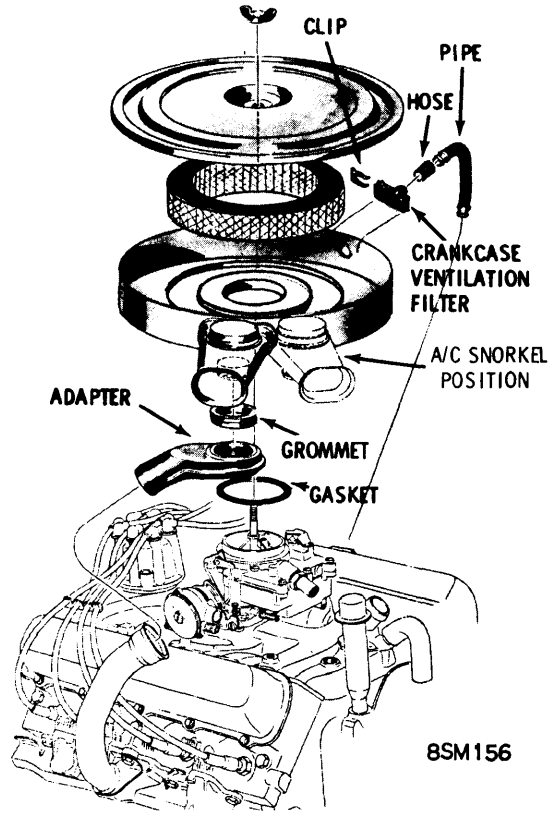
1968-74 Six – These 6 Cyl. engines have a crankcase ventilation filter clipped to inside of air cleaner.

1966-67 & 1969-72 V8 – Crankcase ventilation filter on these engines is located on valve cover. *NOTE – All 1969-72 models except Toronado, filter is located on right valve cover. Toronado filter is located on left valve cover.*

1973-74 V8 – Crankcase ventilation filter on these engines is located on left valve cover on all models except those equipped with a 455" engine with manual transmission. 455" engines with manual transmission are equipped with dual ventilation and have a filter on each valve cover.

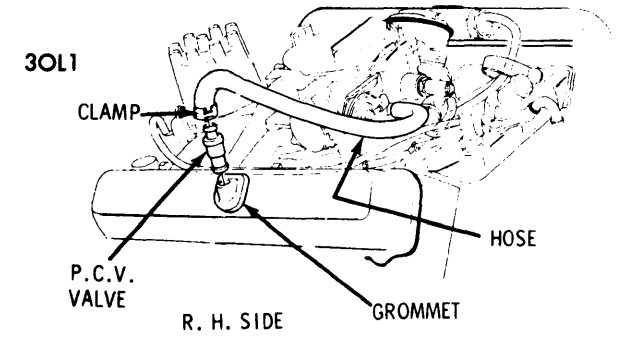
OPERATION

6 Cyl. Engines – Crankcase ventilation system receives its air through air cleaner snorkel. After air enters carburetor air cleaner, it passes through crankcase ventilation filter, then through a hose to left side of valve cover where it mixes with crankcase vapors. Vapors are then drawn through spring loaded PCV valve located in top of valve cover then through a hose into intake manifold where they are burned.

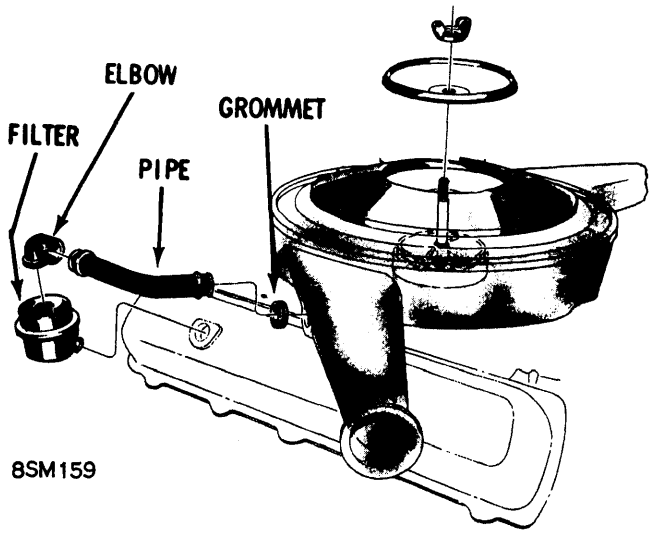


1968 V8 CRANKCASE VENTILATION SYSTEM

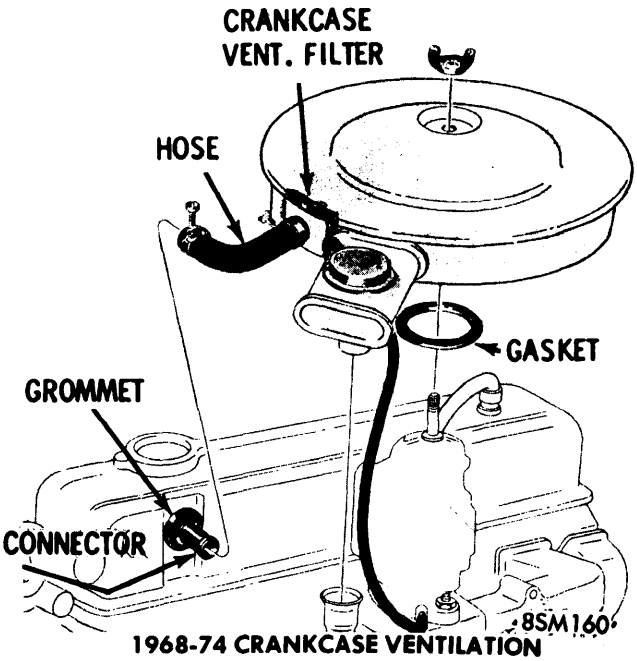
V8 Engines – Crankcase ventilation system receives its air through engine air cleaner snorkel. After air enters air cleaner, it passes through a tube to valve cover (dual ventilation, both valve covers). Air passes through crankcase ventilation filter and into crankcase where it mixes with crankcase vapors. Vapors are then drawn through PCV valve and through a hose to base of carburetor and into engine where they are burned.



1973-74 CRANKCASE VENTILATION SYSTEM (V8)



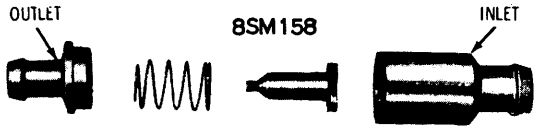
1966-67 V8 AIR FILTER LOCATION



1968-74 CRANKCASE VENTILATION FILTER LOCATION (6 CYL.)

Crankcase Ventilation

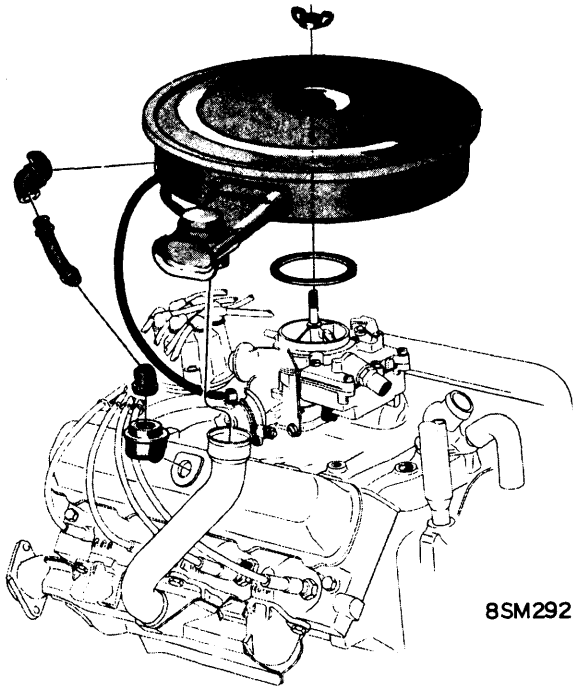
1966-74 OLDSMOBILE CLOSED SYSTEM (Cont.)



VENTILATION VALVE

SYSTEM CHECKING

If sludging of PCV valve occurs it will not operate and valve may be closed. This will cause high crankcase pressure at highway speeds. This pressure can cause engine to blow out oil through engine seals and gaskets. A plugged system will cause a rough idle. Check for rough idle due to defective PCV valve as follows: Connect tachometer to engine and start engine and adjust idle. Clamp off hose from PCV valve to carburetor base. If system is working properly, engine RPM will change 50 to 60 RPM. You should be able to hear valve click shut when clamping off hose and releasing it several times. There will be no change in engine RPM if PCV valve or hoses are sludged up or restricted.



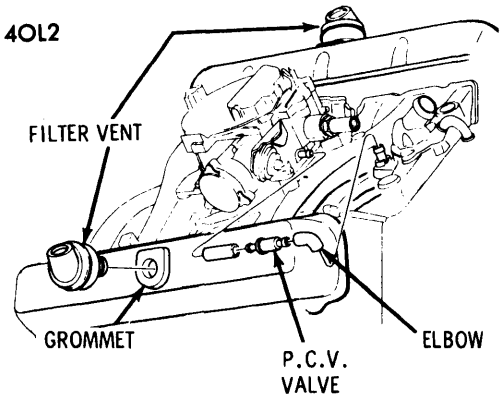
1969-72 V8 AIR CLEANER AND CRANKCASE VENTILATION

SERVICE PROCEDURES

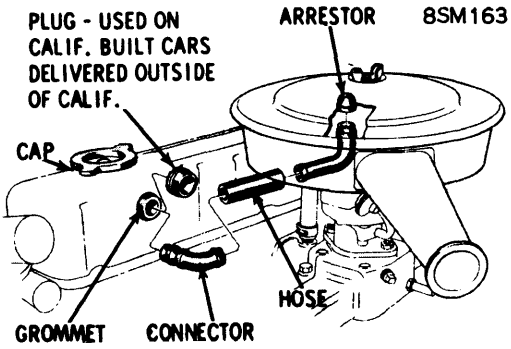
Clean PCV filter (V8 models) and check system for proper operation at 12 month or 12,000 mile intervals.

Crankcase Ventilation Filter – Clean and re-oil V8 filter(s) every 12 months or 12,000 miles. On 6 cylinder models, filter is located in air cleaner and should be replaced every 24 months or 24,000 miles except under dusty conditions, replace every 12,000 miles or 12 months.

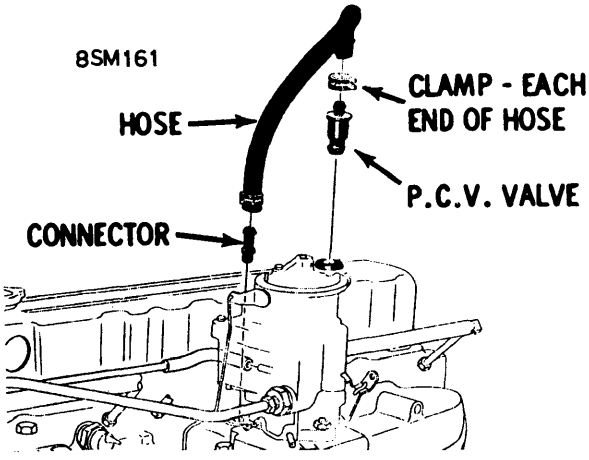
PCV Valve – Replace valve every 12 months or 12,000 miles (1966-71) or every 24 months or 24,000 miles (1972 and later). On 1972 and later models, if vehicle is operated under severe conditions (extreme dust, prolonged idling, trailer towing or short trips in cold weather) replace valve every 12 months or 12,000 miles. When replacing PCV valve, rest of system should be serviced by washing parts in solvent and blowing out hoses with compressed air.



1973-74 DUAL VENTILATION SYSTEM (455" MAN. TRANS.)



1966-67 6 CYL. FLAME ARRESTOR LOCATION



6 CYL. VALVE & HOSE CONNECTIONS (TYPICAL)