

# Crankcase Ventilation

## 1965-74 BUICK CLOSED SYSTEM

### DESCRIPTION

A "closed" positive crankcase ventilation system was first used on 1965-67 vehicles built for sale in California. From 1968 on, all vehicles are equipped with closed positive crankcase ventilation systems. System consists of a positive crankcase ventilation (PCV) valve, a hose connecting PCV valve to carburetor base or intake manifold, a sealed breather cap, an air filter assembly located in air cleaner (1968-74 models) or a mesh breather assembly located on rocker arm cover (1965-67 Calif. models) and a hose connecting air cleaner to rocker arm cover.

### OPERATION

Air enters system through air cleaner, to a filter element (1968-74) or a mesh breather assembly (1965-67), through a hose, and into rocker arm cover. Ventilation fumes are picked up at rocker cover and routed through a hose and PCV valve to intake manifold. Here fumes are mixed with air/fuel mixture and burned in combustion chambers. PCV valve regulates flow of fumes to intake manifold by use of manifold vacuum.

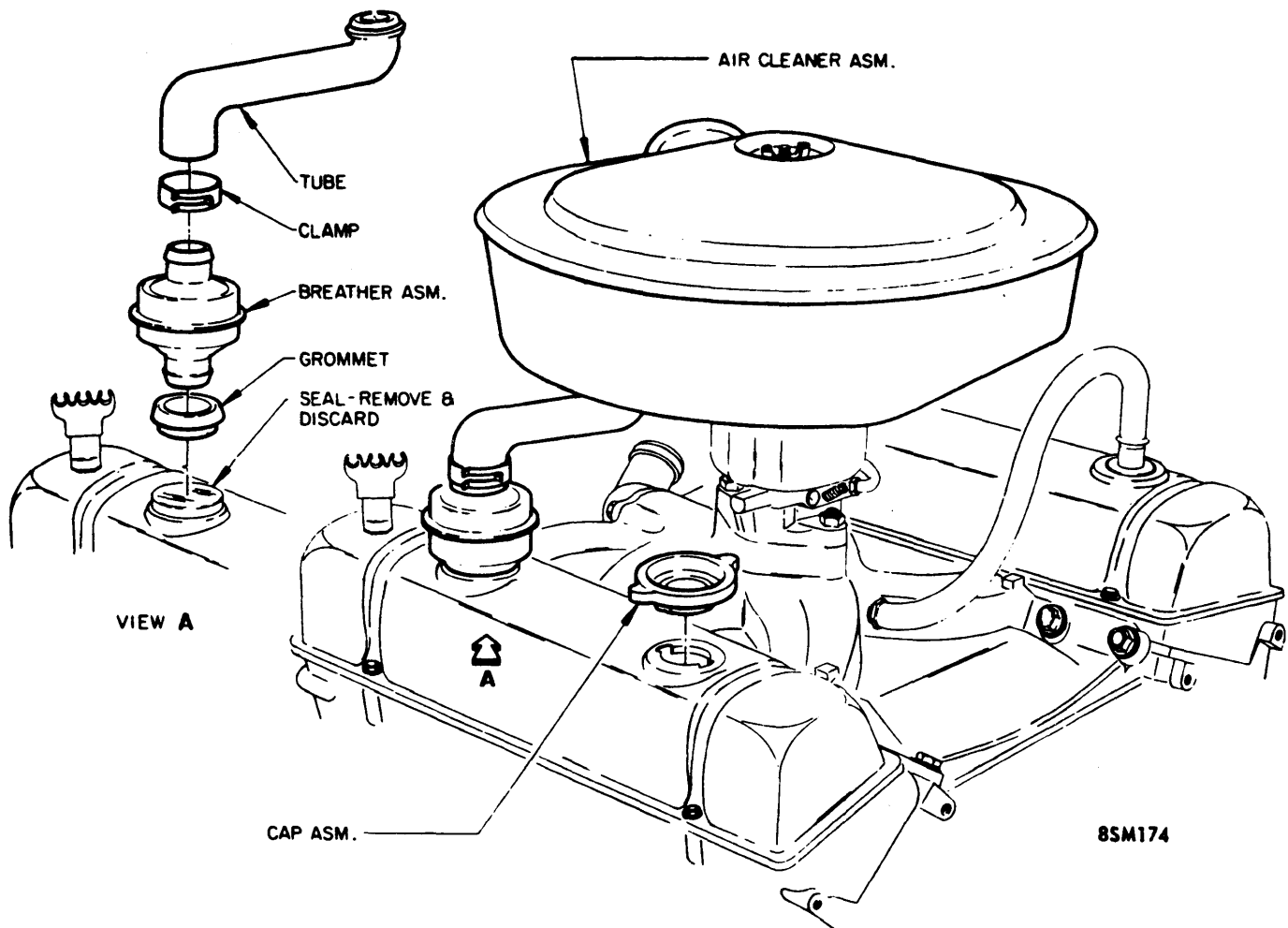
### SERVICE PROCEDURES

After periods of operation PCV valve tends to become clogged, which will eventually stop all crankcase ventilation. Without ventilation system operating, serious engine damage may result. It is very important to replace PCV valve at regular intervals to insure proper operation of ventilation system. It is recommended that PCV valve be replaced every 12,000 miles.

**Breather Assembly (1965-67)** - To allow proper amount of ventilating air to enter system it is important to clean breather assembly. It is recommended that breather assembly be cleaned every 12,000 miles (more often under dusty operating conditions).

**Closed Crankcase Ventilation Filter (1968)** - Air filter assembly, located in air cleaner, should be cleaned every time air cleaner element is replaced. Filter should be washed in a suitable solvent and dried by blowing lightly with compressed air. Oil with engine oil and shake out excess oil. Reinstall filter assembly.

**Closed Crankcase Ventilation Filter (1969-74)** - Filter should be inspected every 4 months or 6,000 miles, and replaced if necessary. Remove filter from inside air cleaner by removing breather hose clamp, breather hose and filter retainer clip. *NOTE - Cleaning of filter element is not recommended.*



1965-67 CLOSED CRANKCASE VENTILATION SYSTEM (TYPICAL)

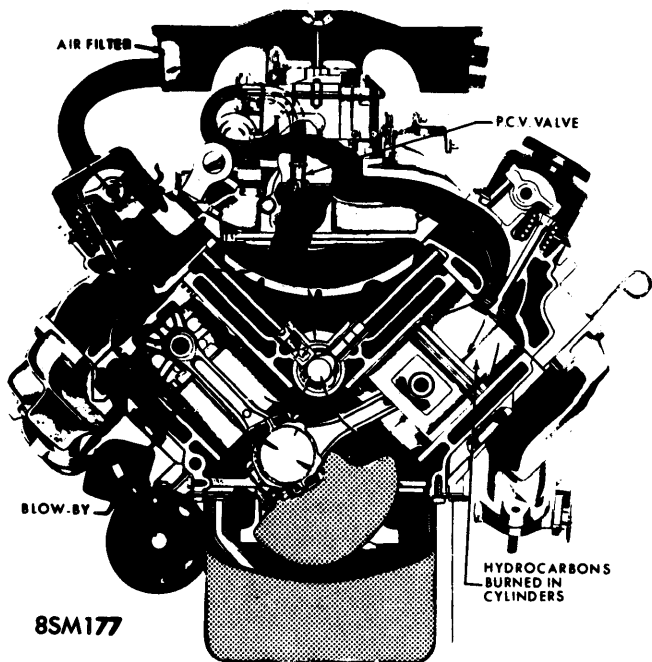
# Crankcase Ventilation

## 1965-74 BUICK CLOSED SYSTEM (Cont.)

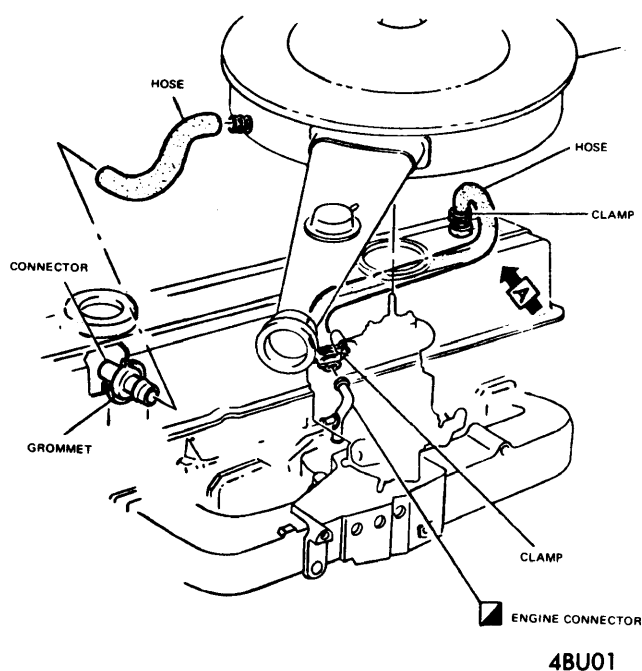
### SYSTEM CHECKING

**NOTE** — An engine may idle slow or rough due to a clogged PCV valve; therefore, never adjust carburetor idle without first checking PCV valve for proper operation. Test system as follows:

**Testing Procedure (1965-74)** — With tachometer attached to engine and engine idle set, squeeze valve hose off to stop all air flow. If idle speed drops 60 RPM or more, PCV system is functioning properly. If idle speed drops less than 60 RPM, system is probably clogged (Install new valve and recheck). After installing a new PCV valve always re-adjust engine idle.



**1968-74 CLOSED CRANKCASE VENTILATION SYSTEM (V8)**



**1973-74 CLOSED CRANKCASE VENTILATION SYSTEM (6 CYL.)**