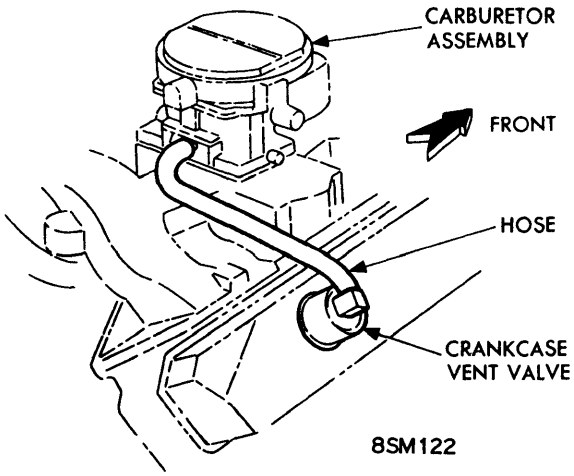
1961-63 CHRYSLER CORP. OPEN SYSTEM

DESCRIPTION

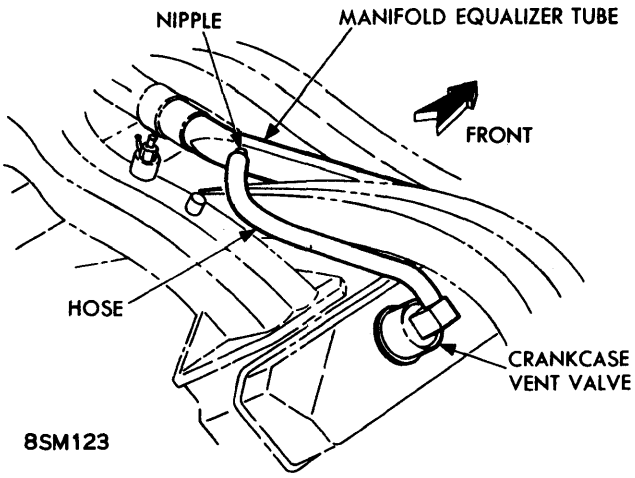
1961-63 Chrysler Corp. cars have an "open" crankcase ventilation system. This system is a "Type 1" design. The system consists of a ventilation valve installed in the outlet vent on the cylinder head cover and a tube connected between outlet vent and lower portion of carburetor throttle body. Function of ventilator valve is to regulate the flow of crankcase ventilation at various throttle positions.

OPERATION

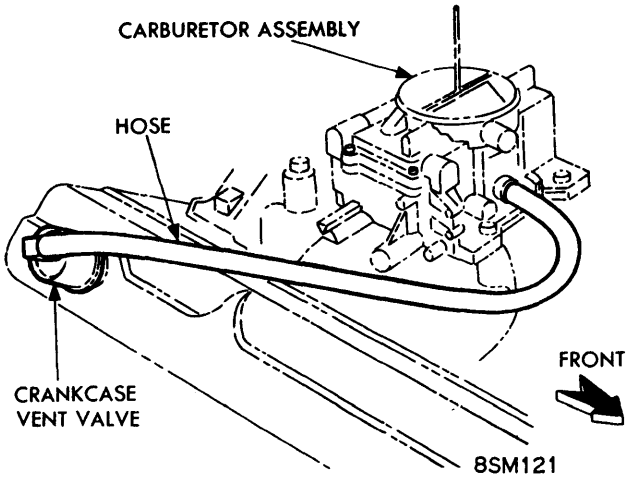
The "open" crankcase ventilation system operated by means of air drawn into the crankcase through the oil filler cap. The air is then circulated through the engine where it mixes with blow-by gases. The fumes are then drawn out of the cylinder head cover by intake manifold vacuum into the combustion chambers and exhausted with the exhaust gases. The system will operate effectively as long as normal maintenance is applied. Both the valve and tube are subject to fouling with sludge and carbon formation.



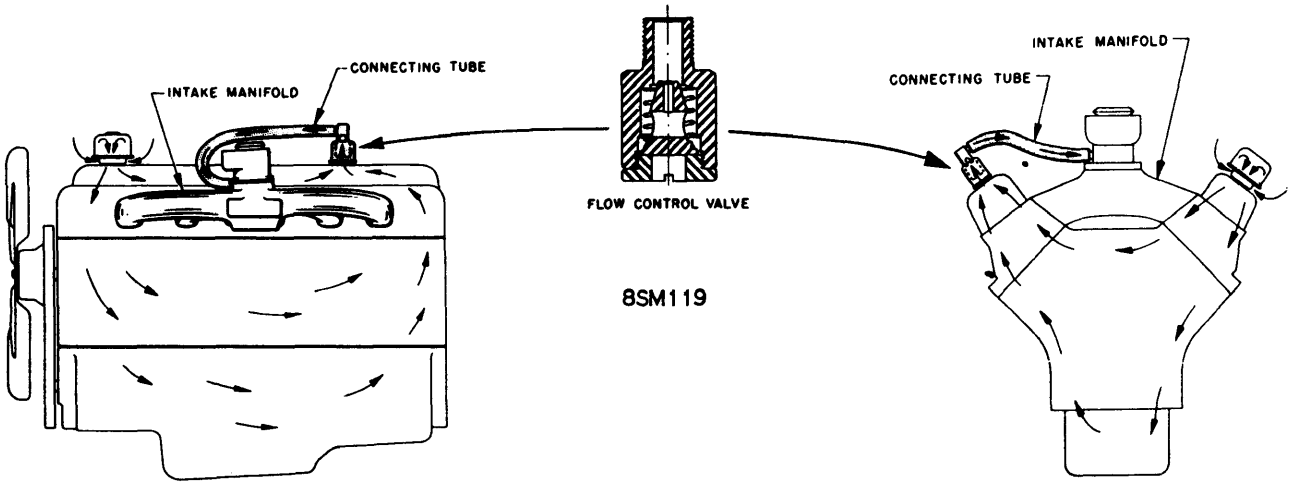
OPEN CRANKCASE HOSE CONNECTIONS (2-BBL. CARBURETOR)



OPEN CRANKCASE HOSE CONNECTIONS RAM MANIFOLD



OPEN CRANKCASE HOSE CONNECTIONS (4-BBL. CARBURETOR)



"OPEN" CRANKCASE VENTILATION SYSTEMS

Crankcase Ventilation

1961-63 CHRYSLER CORP. OPEN SYSTEM (Cont.)

SERVICE PROCEDURES

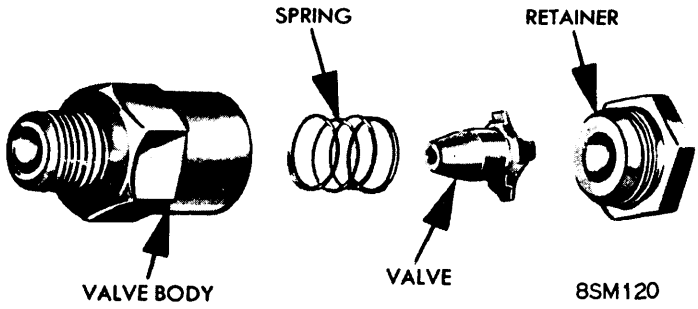
If the ventilation system should become plugged it may cause excessive engine crankcase sludge formation and rough or erratic engine idle. It is very important that the ventilator valve be cleaned at regular intervals. *See chart for regular servicing intervals below.*

Servicing Intervals

1961	①10,000 miles
1962	①8,000 miles
1963	①6 months

① - Under cold weather conditions where vehicle speeds are slow and engine temperatures are low, more frequent servicing of the ventilator valve is needed.

Ventilator Valve Cleaning and Checking - Remove valve from cap. Soak valve in a suitable carburetor cleaner and blow out with compressed air. If valve has been properly cleaned the unit will click when shaken. Check to see if outlet passage is clean. If valve is badly plugged and cannot be cleaned by this procedure, it must be disassembled and all elements properly cleaned. When disassembling valve take care not to stretch spring and to reassemble the pieces in the proper order. *NOTE - Free height of spring is 9/16".* While ventilation valve and cap assembly are removed for cleaning, put a finger over open end of ventilator hose and have engine started. If ventilator hose and carburetor passages are operating normally a strong suction will be felt and a change in engine idle quality noted, with the end of the hose uncovered. If system is plugged these conditions will not be observed. When reassembling valve make sure spring is properly re-installed. If spring is not correctly installed valve will not seat properly, resulting in improper engine idle. A spring that has been stretched can cause the same trouble. *NOTE - If improper action of spring is suspected due to the spring being distorted, bent or stretched from corrosive action, the valve assembly should be replaced.*



CRANKCASE VENTILATION VALVE (DISASSEMBLED)

1964-67 CHRYSLER CORP. OPEN SYSTEM

DESCRIPTION

The "open" crankcase ventilating system "TYPE I" was used from 1964-67. It is similar, but not identical, to systems used on the previous models. This system consists of a crankcase ventilator valve and cap mounted on cylinder head cover, a special carburetor with hose fitting in base, and hose connecting ventilator valve to carburetor base fitting. There are two ventilator valves used by Chrysler Corp. On 170" and 225" engines a MoPar Ventilator Valve is used which is identified by a "6" on the end, a step on the end face, or a white washer. On all other engines, a MoPar Ventilator Valve, identified by a letter "H" stamped on the end, a flat end or a black end washer, is used.

OPERATION

Operation of system is very similar to the operation of the "open" system used on previous years. Air drawn into oil filler cap is circulated through engine, drawn out of cylinder head cover, into combustion chambers and dispelled with the exhaust gases.

SERVICE PROCEDURES

The system must be kept clean to maintain good engine performance durability as deposits will accumulate in the valve, hoses, and the carburetor parts, therefore, the ventilation system should be inspected at least every six months and the valve be replaced once a year. This service will be required more frequently if the vehicle is used extensively for short trips (driving less than 10 miles) with frequent idling, such as city traffic.

Testing Ventilation System - There are three checks that should be made in determining if the ventilation system is operating properly. First, with the engine running at idle, remove the ventilator valve and cap assembly from the rocker cover. If the valve is not plugged, a hissing noise will usually be heard as air passes through the valve and a strong vacuum should be felt when a finger is placed over the valve inlet. Reinstall the ventilator valve and cap assembly and remove the inlet breather cap. With the engine still running at idle, loosely hold a piece of stiff paper over the oil fill pipe. Within a few seconds, it should be sucked against the oil fill pipe with a holding force. If this occurs, a final test should be made to be certain the valve shuttle is free. A clicking noise should be heard when the valve is shaken (engine not running). If the noise is heard, the unit is functioning satisfactory and no further service is necessary.