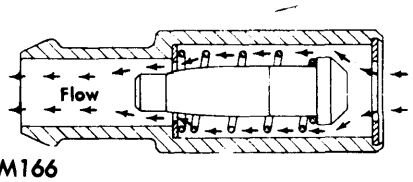
1965-74 AMERICAN MOTORS & 1972-74 JEEP CLOSED SYSTEM

DESCRIPTION

A "Closed" positive crankcase ventilation system is used on 1965 California cars, and on all 1966-74 American Motors cars equipped with exhaust emission control. 1971 232" 6 cylinder Jeep and all 1972-74 Jeep models use the same basic system as American Motors cars. Components of system are: A sealed oil filler cap, a PCV valve connected between engine and an intake manifold source, an air filter located in air cleaner connecting hose (6 Cyl. only) and various hoses which control flow of vapors.

NOTE — For Jeep systems prior to 1972 refer to "1970-71 Jeep" in this section.

NOTE — On some 1972-73 models, evaporation control system is interconnected with crankcase ventilation system. American Motors and Jeep utilize different systems. See "Fuel Evaporation Emission" section.



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1965-74 POSITIVE CRANKCASE VENTILATION FLOW-VALVE

OPERATION

During periods of high manifold vacuum, outside (fresh) air is drawn from air cleaner into crankcase. On 6 cylinder engines, air passes through a wire gauze filter located in hose connection between air cleaner and rocker arm cover. On V8 engines, air passes through a wire mesh filter located in oil filler cap. Filler cap is connected by a hose to air cleaner. When manifold vacuum is low, a calibrated amount of air is reverse-flowed through PCV valve. Crankcase vapors are then drawn through air cleaner element and carburetor and burned along with air-/fuel mixture.

SYSTEM CHECKING

1965-69 — To check operation of system, valve should be removed from grommet. With engine idling, a vacuum should be felt at end of valve. If no vacuum is present, valve and hoses should be removed and cause of restriction determined. *NOTE — During certain vacuum conditions a slight rattle of valve is normal. This is the self-cleaning action of valve.*

1970-74 — Remove PCV valve from grommet in intake manifold (V8) or rocker arm cover (6 Cyl.). Connect valve to PCV Valve Tester J-23111. Connect a vacuum gauge to read intake manifold vacuum. *NOTE — PCV valve must be in a horizontal position and be lightly tapped during tests, tester should be in a vertical position.* Start engine, allow to idle, compare vacuum and tester readings to flow chart. On 1970 engines only, stop engine and remove secondary coil wire from distributor and ground to engine. *CAUTION — Throttle must be at curb idle position (off fast idle) for cranking speed test.* Crank engine, compare vacuum and tester reading with flow chart. Clean or replace valve if flow is above or below specifications in either test.

ENGINE MANIFOLD VACUUM		Air Flow	C.F.M.
		232-304-360-390	199
	In. HG.	Black Color Valve	Silver Color Valve
IDLE TEST POINT — Min. Flow	20	1.3-1.7	1.3-1.7
	18	1.3-1.7	1.3-1.7
	16	1.3-1.7	1.3-1.7
	14	1.5-2.0	1.3-1.7
	12	1.7-2.5	1.3-1.7
	10	2.1-2.8	1.3-1.7
	8	2.4-3.4	1.3-1.7
CRANKING* SPEED TEST POINT — Max. Flow	6	2.7-3.7	1.3-1.7
	4	3.2-4.2	1.7
	2	3.3-4.4	1.7

* Coil Secondary Wire Removed and Grounded. Carburetor Throttle at Curb Idle.

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1970 PCV VALVE FLOW CHART

ENGINE MANIFOLD VACUUM	Air Flow	C.F.M.
	232-258-304-360-401	232-01, 40
In. HG.	Black Color Valve	Silver Color Valve
20	1.35-1.65	1.3-1.7
18	1.35-1.65	1.3-1.7
16	1.35-1.65	1.3-1.7
14	1.35-1.65	1.3-1.7
12	1.35-2.2	1.3-1.7
10	1.8-2.9	1.3-1.7
8	2.4-3.3	1.3-1.7
6	2.8-3.85	1.3-1.7
4	3.2-4.2	1.7

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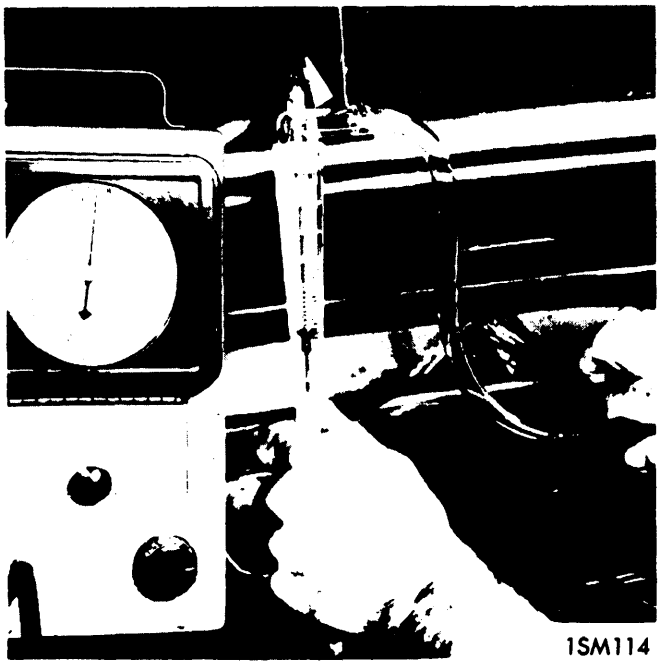
1971-74 PCV VALVE FLOW CHART



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TESTING PCV VALVE & SYSTEM

1965-74 AMERICAN MOTORS & 1972-74 JEEP CLOSED SYSTEM (Cont.)

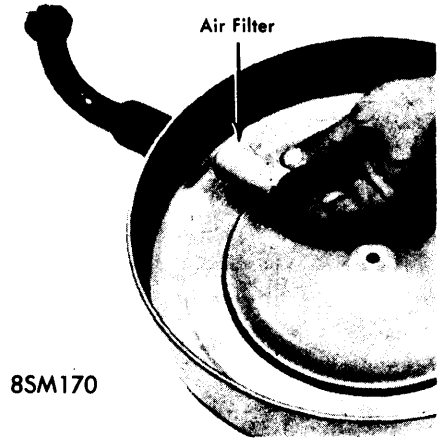
SERVICE PROCEDURES

System will work effectively as long as all component parts are clean and free from sludge and foreign material. Replacement of PCV valve and cleaning of system should be done at proper mileage intervals listed below:

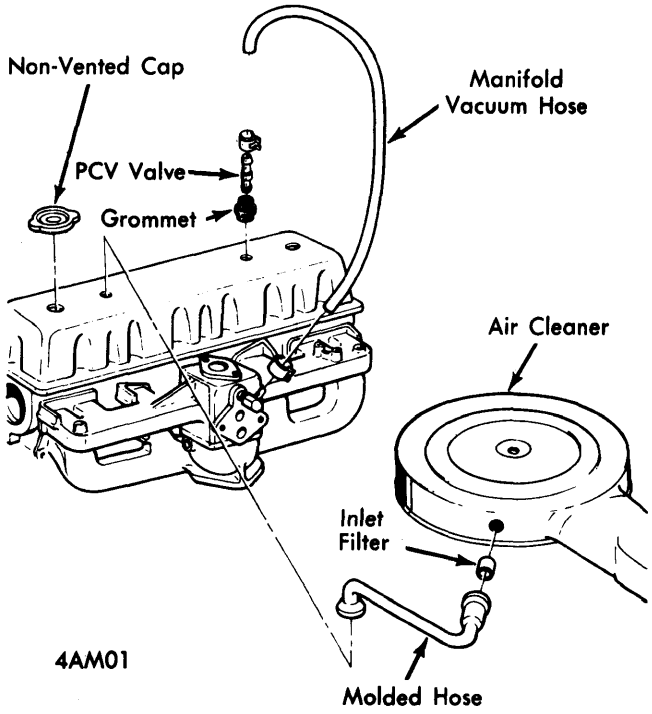
Service Intervals

Year	Mileage
1965	8,000
1966-74	12,000

Oil Filler Cap (V8 Engines) – On vehicles equipped with a "closed" ventilation system, the oil filler cap should be washed in solvent and blown dry with compressed air every 4,000 miles (1966-69) or every 6,000 miles (1970-74).



INLET FILTER REMOVAL (6 CYL.)



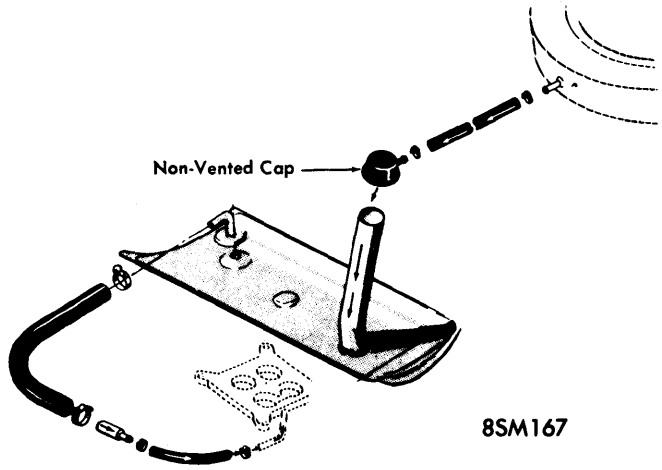
CRANKCASE VENTILATION SYSTEM (6 CYL.)

Filter Pad 1966-67 (232" 6 Cyl.) – Filter pad, located in silencer, must be cleaned with detergent and lubricated with SAE 20 engine oil at every 12,000 mile service interval.

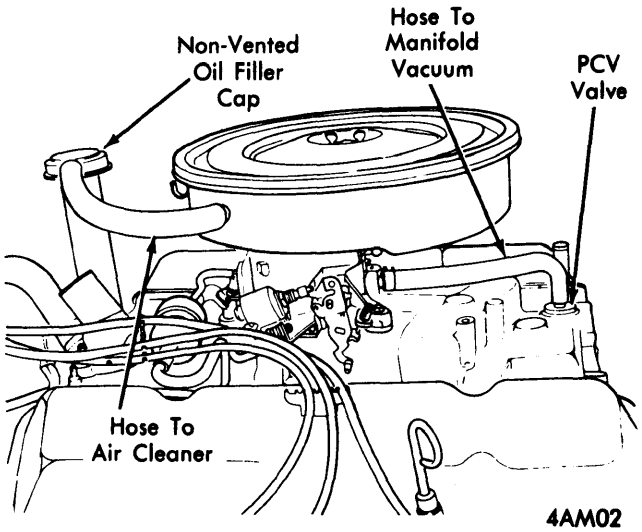
Air Inlet Filter (All 6 Cyl. Engines Exc. 1966-67 232") – Air inlet filter must be cleaned with solvent every 12,000 miles. *NOTE – Inlet filter must be removed from inside carburetor silencer hose prior to removing hose from cover. If hose is pried out with filter in place, molded end of air inlet hose will be damaged.*

PCV Valve – After removing valve, check to see that inner chamber of valve moves freely. This can be done by inserting a stiff wire into valve body and observing whether or not plunger can be readily moved.

Carburetor Air Cleaner Element – Clean every 12,000 miles and replace every 24,000 miles.



1965-66 CLOSED CRANKCASE VENTILATION SYSTEM (V8)



1967-74 CRANKCASE VENTILATION SYSTEM (V8)