JEEP

DESCRIPTION

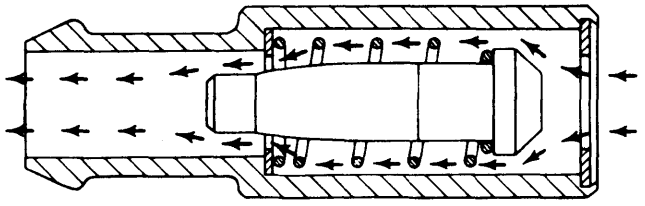
All 1965-74 Jeep vehicles are equipped with a closed positive crankcase ventilating system. System consists of a sealed oil filler cap, PCV valve connected between an intake manifold vacuum source and engine, air filter located in air cleaner connecting hose (6-cylinder only) and various hoses and connections. On some 1972-73 models, evaporation control system is interconnected with crankcase ventilation system.

OPERATION

F4 Engine – Clean air enters crankcase through a hose connected between top cover of air cleaner and oil filler tube of engine. PCV valve is attached to pipe fitting mounted in center of intake manifold. A hose connects valve to a vapor dome on rocker arm cover.

V6 Engine – Clean air from carburetor air cleaner enters crankcase through hose and mesh screen. The screen housing is attached to left cylinder bank rocker arm cover. PCV valve is mounted on right bank rocker arm cover and is connected by a hose to a fitting at base of carburetor at intake manifold opening.

In-Line 6 and V8 Engines – During periods of high manifold vacuum, clean 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 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.



4JE01

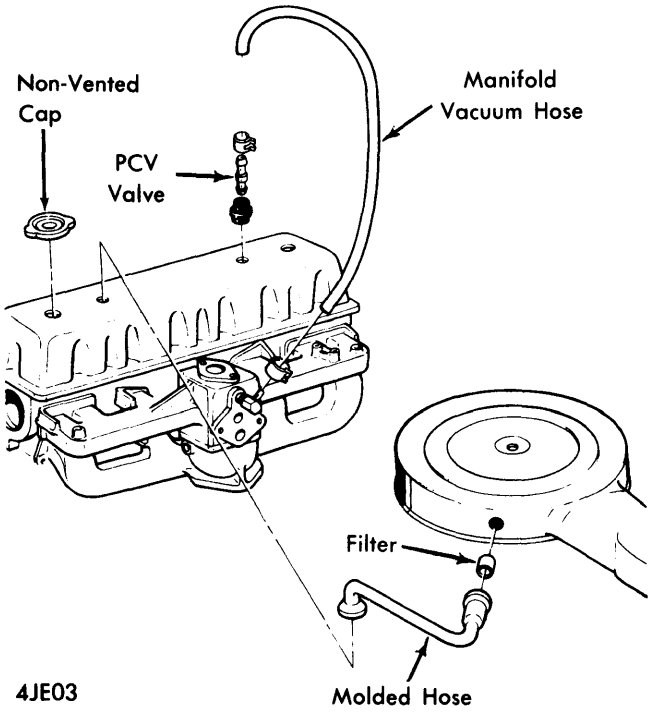
POSITIVE CRANKCASE VENTILATION VALVE FLOW

MAINTENANCE & TESTING

Crankcase ventilation system will work effectively as long as all component parts are clean and free from sludge and foreign materials. Replacement of PCV valve and cleaning of system should be done at proper mileage intervals. Service intervals are as follows:

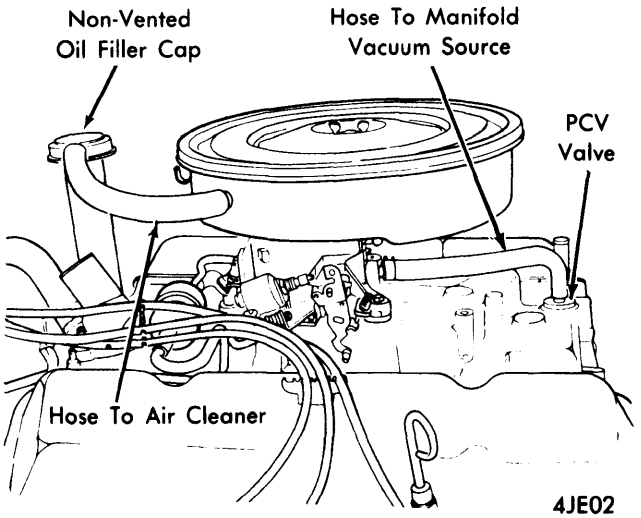
Service Intervals

Year	Mileage
1965	8,000
1966-72	12,000
1973-74	15,000



4JE03

POSITIVE CRANKCASE VENTILATION SYSTEM (6-CYL.)



4JE02

POSITIVE CRANKCASE VENTILATION SYSTEM (V8)

Crankcase Ventilation Systems

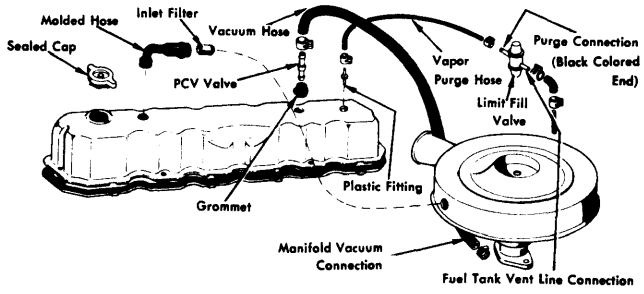
JEEP (Cont.)

1965-69 – To test 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 PCV valve is normal. This is the self-cleaning action of valve.*

1970-74 – Remove PCV valve from grommet in intake manifold (V8) or rocker 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 test and tester should be in a vertical position.* Start engine, allow to idle, compare vacuum and tester readings to flow chart. If air flow is above or below specifications, clean or replace PCV valve.

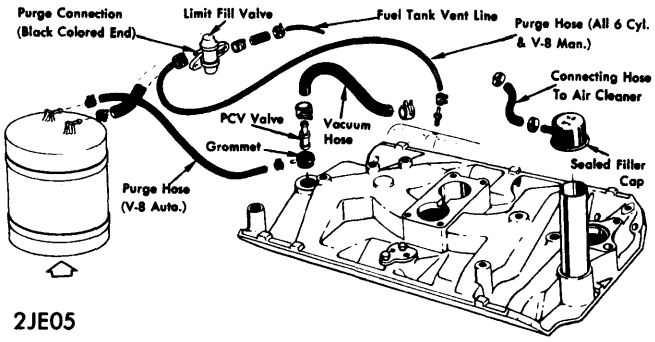
PCV VALVE FLOW CHART

ENGINE MANIFOLD VACUUM (In. Hg)	AIR FLOW (cfm)
20	1.35-1.65
18	1.35-1.65
16	1.35-1.65
14	1.35-1.65
12	1.35-2.20
10	1.80-2.90
8	2.50-3.50
6	2.90-4.00
3	3.30-4.40



2JE04

PCV AND FUEL TANK VAPOR SYSTEM (6-CYL. 1972-73)



2JE05

PCV AND FUEL TANK VAPOR SYSTEM (V8 1972)