

## VOLVO CLOSED

- 122 Series (1965-68)
- 140 Series (1968-73)
- 164 Series (1969-73)
- 1800 Series (1965-73)

### DESCRIPTION

**122, 140 & 1800 (1965-68)** – Crankcase ventilation system consists of two hoses, control valve and an oil trap. Fresh air hose connects air cleaner to rocker arm cover. Crankcase gas hose connects crankcase to intake manifold.

**140 & 1800 (1969-72)** – Crankcase ventilation system consists of two hoses, flame arrestor, fixed orifice and oil separator. Fresh air hose connects air cleaner to crankcase. Crankcase gas hose connects rocker arm cover to intake manifold.

**164 (1969-70)** – Crankcase ventilation system consists of two hoses, flame arrestor and a fixed orifice. Fresh air hose connects air to rocker arm cover. Crankcase gas hose connects rocker arm cover to intake manifold.

**164 (1971-72)** – Crankcase ventilation system consists of two hoses, flame arrestor, fixed orifice and a oil separator. Fresh air hose connects air cleaner to rocker arm cover. Crankcase gas hose connects crankcase to intake manifold.

**Fuel Injected Engines** – Crankcase ventilation system consists of two hoses, flame trap and an oil trap. Fresh air hose connects air cleaner to crankcase. Crankcase gas hose connects crankcase to intake manifold.

**140 & 1800 (1969-72)** – Fresh air is drawn into crankcase through crankcase gas hose, flame arrestor and oil separator. Crankcase gases are drawn into intake manifold through crankcase gas hose and fixed orifice.

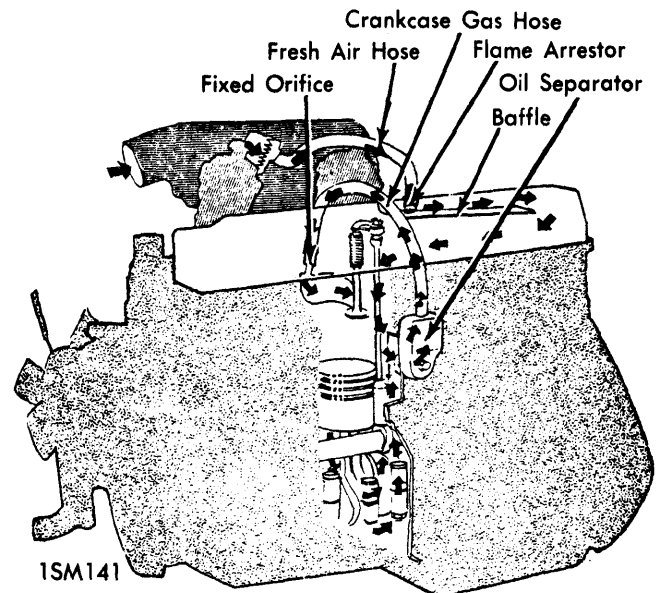
**164 (1969-70)** – Fresh air is drawn into rocker arm cover, directed by a baffle through crankcase and back into rocker arm cover. Another baffle directs gases through crankcase gas hose and a fixed orifice into intake manifold.

**164 (1971-72)** – Fresh air is drawn through fresh air hose and flame arrestor into rocker arm cover and is directed by a baffle into crankcase. Crankcase gases are drawn into intake manifold through oil separator and crankcase gas hose.

**Fuel Injection Engines** – Fresh air is drawn into crankcase through fresh air hose, flame and oil trap. Crankcase gas is drawn into intake manifold through crankcase gas hose.

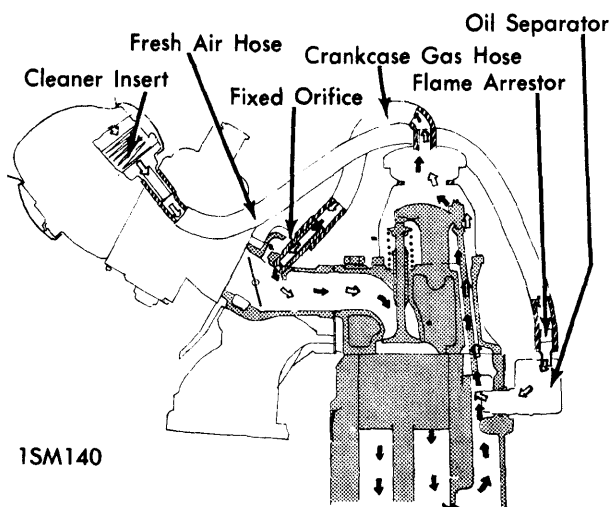
### OPERATION

**122, 140 & 1800 (1965-68)** – Fresh air is drawn into rocker arm cover through fresh air hose. Crankcase gases are drawn out of crankcase, through oil trap and control valve, into intake manifold through crankcase gas hose.



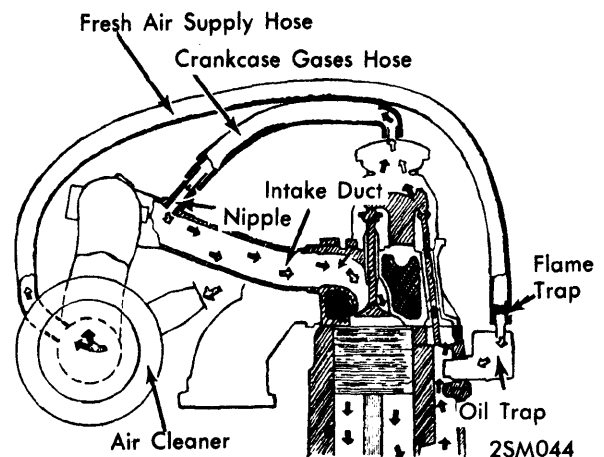
1SM141

**CRANKCASE VENTILATION SYSTEM  
1971-72 164 (CARBURETOR)**



1SM140

**CRANKCASE VENTILATION SYSTEM  
1969-72 140 & 1800 (CARBURETOR)**



2SM044

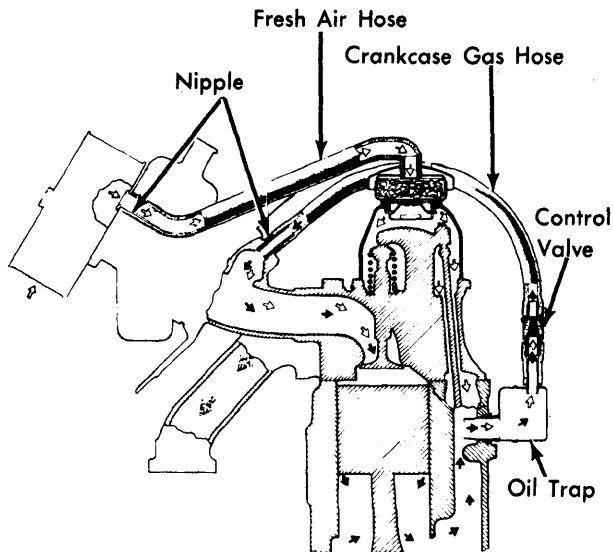
**CRANKCASE VENTILATION SYSTEM  
ALL FUEL INJECTION ENGINES**

# Crankcase Ventilation

## VOLVO CLOSED (Cont.)

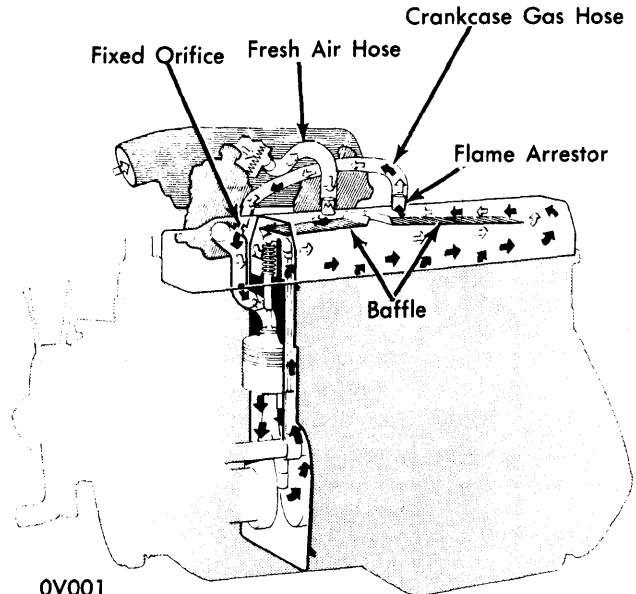
**164 Models** – Crankcase gases are vented from crankcase, through an oil separator, to intake manifold, by means of a connecting hose incorporating a fixed orifice. Fresh air is supplied to crankcase from air cleaners, through a connecting hose, to rocker cover. The rocker cover has a flame arrestor at the connection point and a baffle to ensure adequate fresh air circulation.

**1800ES** – The partial vacuum which is present in the intake duct when engine is running, causes the crankcase fumes to be drawn through a hose and into intake duct. Fresh air is routed from the air cleaner, through a hose, into the oil trap, and into the crankcase. When the partial vacuum in the crankcase is less than that in the air cleaner (full load or high engine speed), no fresh air is supplied to the crankcase. The flow of vapors under this condition may go both ways through the system and into the engine for combustion.



8V002

**CRANKCASE VENTILATION SYSTEM**  
1965-68 122,140 & 1800 (CARBURETOR)



0V001

**CRANKCASE VENTILATION SYSTEM**  
1969-70 164 (CARBURETOR)

## MAINTENANCE

**1965-69** – Clean oil separator, hoses and fixed orifice every 12,500 miles. Replace parts if necessary. If used, replace PCV valve every 12,500 miles.

**1970-71** – Clean fixed orifice and inspect and replace hoses as necessary every 25,000 miles.

**1972** – Clean fixed orifice and inspect and replace hoses as necessary every 12,000 miles.

**1973** – System including all hoses should be inspected periodically for deterioration or leakage. The nipple (calibrated orifice) located on the intake duct should be cleaned every 12,000 miles (USA models) or every 24,000 miles (Canada models).