

MERCEDES-BENZ

240D
280 Series
300 Series
380 Series

DESCRIPTION & OPERATION

Diesel Models — The system consists of a vent hose to the cylinder head cover, a vent insert in the cover, a vapor separator in the air cleaner, and a drain hose from the separator to the oil pan. A check valve in the drain hose prevents vapors from rising up the hose. Crankcase vapors are drawn through the vent hose into the separator, then into the intake manifold. Excess oil drains to the oil pan.

Turbo Diesel Models — A vent hose from the cylinder head cover to the air intake (ahead of compressor) draws crankcase vapors into the engine. A by-pass line between air cleaner and vent line allows extra air to be drawn in during heavy load operation. An oil separator in the air cleaner has a drain line (with check valve) to the oil pan to drain off excess oil.

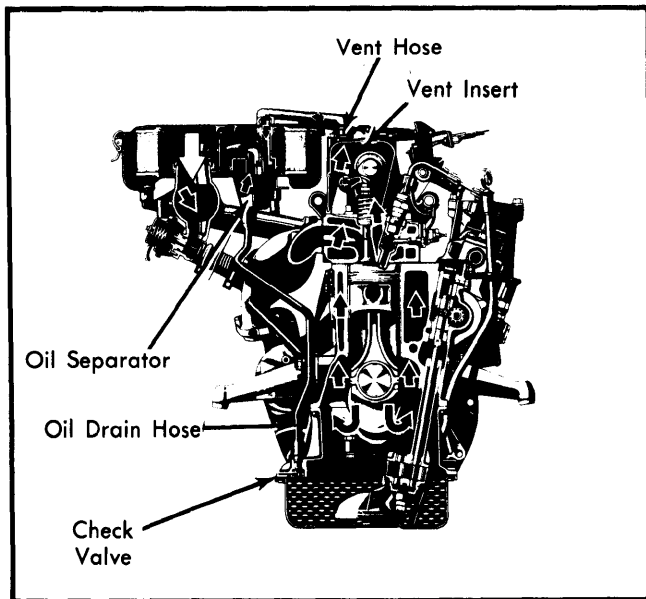


Fig. 1 Diesel Crankcase Ventilation System

280 Models — The system includes a sealed oil filler cap, vent jet in camshaft cover, and a hose connecting vent jet to air cleaner.

The engine blow-by gases and crankcase vapors are routed from the cylinder head cover to the idle air duct in the intake manifold via the vent jet. From this point gases flow through the intake manifold to the combustion chamber.

In the lower and partial load range, intake manifold vacuum draws clean air from the air filter through the air hose connected to the cylinder head cover, picking up blow-by gases from the engine along the way.

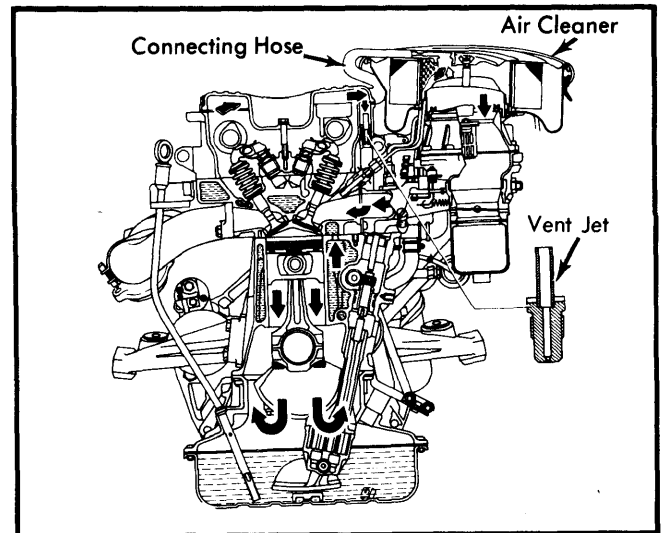


Fig. 2 Crankcase Ventilation System (280 Series)

380 Models — The system consists of a fresh air hose from air cleaner to right cylinder head cover, a breather hose from left cylinder head cover, an orifice and a connection to intake system.

During idle or low speed operation, vapors are drawn through the orifice, into the idle air distributor tubes, then into the intake manifold. Fresh air to vent the engine comes through the air cleaner and right cylinder head cover hose. During high speed operation, vapors pass through hose into air cleaner and are drawn in to be burned.

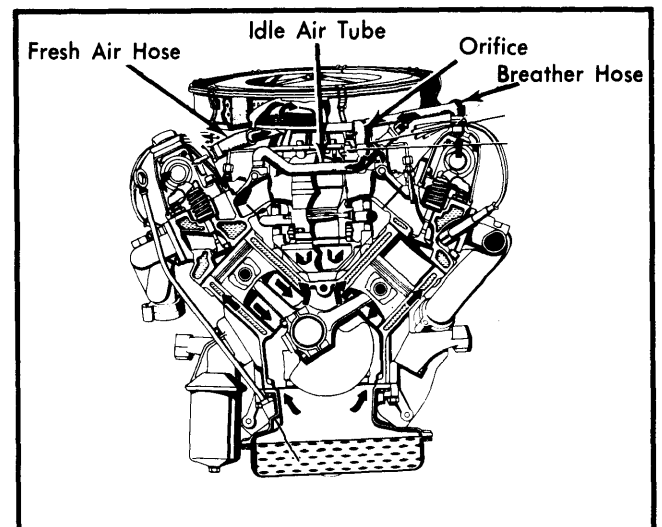


Fig. 3 Crankcase Ventilation System (380 Series)

MAINTENANCE

The crankcase ventilation system is maintenance free, but hoses should be checked to ensure they are in good condition and free of obstructions.