

MAZDA

All Models

DESCRIPTION & OPERATION

Piston Engines — The PCV system includes 2 hoses and a PCV valve. Air normally flows out the valve cover hose, through the PCV valve and into the combustion chambers. A hose from the air cleaner to the valve cover supplies fresh air to the crankcase.

When intake manifold vacuum drops due to heavy loads, the amount of blow-by exceeds the capacity of the PCV valve. Air then flows directly from the valve cover into the air cleaner and carburetor. When the engine is not running, the PCV valve is closed and vapors are stored in the crankcase.

Rotary Engines — The system used on the rotary engine (RX7) is also a closed system and operates basically the same way as the piston engine arrangement. Filtered air is drawn into the system through the air cleaner, mixed with the gases and vapors that blow by the rotor during engine operation, and is drawn out through a purge valve and into the intake manifold. The purge valve operates as the PCV valve in this system.

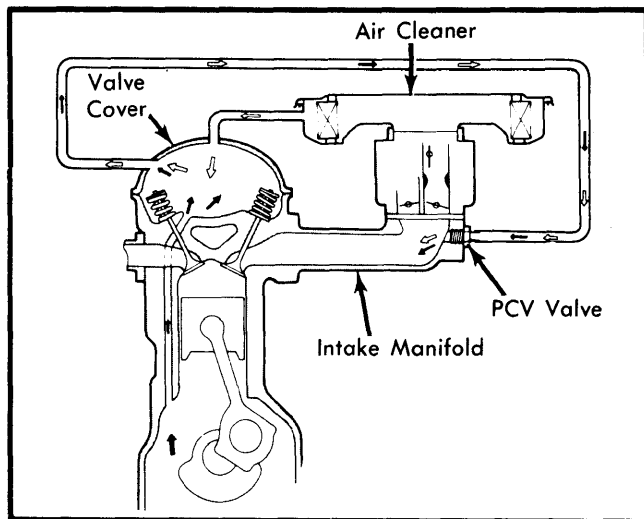


Fig. 1 Crankcase Ventilation System for Piston Engines (GLC, 626 and B2000)

TESTING

Piston Engines (Exc. GLC) — With engine idling at normal operating temperature, disconnect PCV valve hose at valve cover. Close off hose opening with finger and check that idle speed drops. If idle speed does not drop, replace PCV valve.

Piston Engines (GLC) — Remove PCV valve from valve cover. Blow through valve with mouth pressure from valve cover side of valve; air should pass through. Blow through valve from opposite end; air should not pass through. If valve does not operate as described, replace PCV valve.

Rotary Engines — 1) Disconnect purge valve-to-oil filler tube hose from purge valve. Start engine and operate at idle speed. Place finger over port "C" and check that air is not being drawn into port. See Fig. 2.

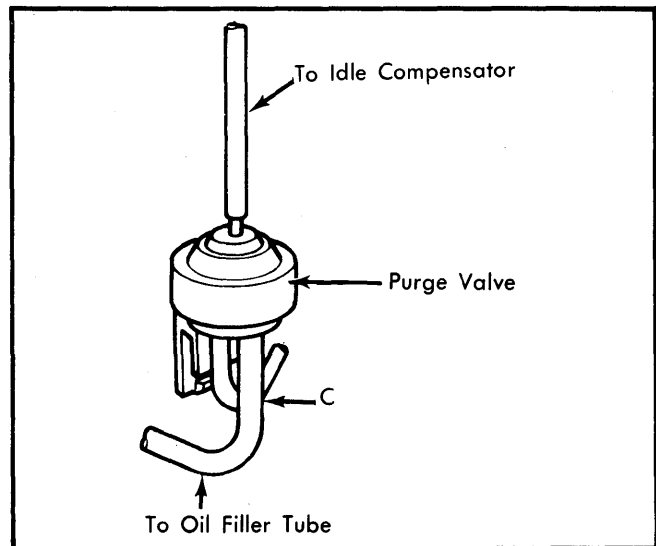


Fig. 2 Purge Valve for Rotary Engine (RX7)

2) Increase engine speed to 2000 RPM and check port "C". Air should be drawn into port. If valve does not operate as outlined, replace purge valve.

MAINTENANCE

Clean and check PCV system every 30,000 miles.