

# Exhaust Emission Systems

## PEUGEOT AIR INJECTION

Peugeot 504 (1973)

### DESCRIPTION

An exhaust emission control system which reduces quantities of unburnt hydrocarbons, carbon monoxide and oxides of nitrogen. New system replaces Coppolair system with all its components. New system consists of:

- 1) Two carburetors, 32 BICSA 2 and 34 PBIC 8, with two idling electro valves which shut off idling jets when engine is shut off.
- 2) An air pump which pumps fresh air to exhaust valve heads. A non-return valve which allows air to enter exhaust manifold and prevents exhaust gases from blowing back into air pump.
- 3) An injection valve, controlled by vacuum from first carburetor, which allows air to be injected into intake manifold during deceleration.
- 4) A special cylinder head with air ducts. A single down pipe exhaust manifold and a modified timing cover, support plate and ignition plate.

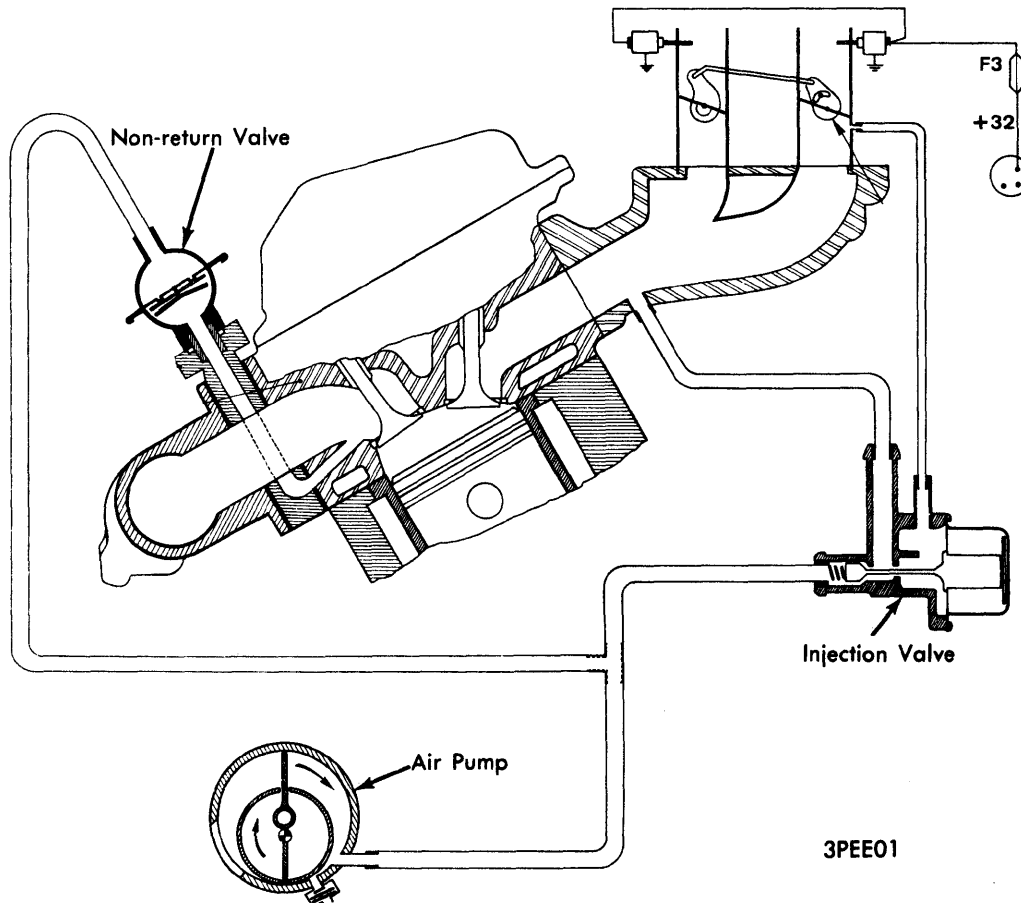
### OPERATION

**Air Pump** — As engine is started, pump supplies air pressure to non-return valve, opening it. As valve is opened, air is supplied to distribution outlets (in cylinder head) at exhaust valves. This air completes burning process of fuel.

**Injection Valve** — Injection valve is controlled by vacuum from the first carburetor (32 BICSA 2). Valve is closed during acceleration and cruising (low vacuum). Valve opens during deceleration (high vacuum), allowing pump to supply air to intake manifold. This air leans out air/fuel ratio for more efficient combustion.

### MAINTENANCE

Clean electro valve contacts every 12,000 miles. Check pump output, injection valve and sealing of non-return valve every 24,000 miles. Replace components as necessary.



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