1975-79 EXHAUST EMISSION SYSTEMS
Ford Motor Co. Thermactor II Pulse Air System

1978-79 Ford Motor Co.

DESCRIPTION

This system is used on some Federal models equipped with the 200" 6-cylinder engine and automatic transmission. This system differs from the standard Thermactor I system in that it does not use an air pump. In operation, the system uses exhaust "pulses" to pull fresh air into the exhaust manifold.

An air inlet valve and a flame arrestor are connected to the exhaust manifold and air cleaner with hoses. The air inlet valve resembles a conventional check valve, but the two are not interchangeable.

OPERATION

When pressure in the exhaust manifold is more than the pressure in the air cleaner (positive pressure), the air inlet valve closes. When pressure is less in the exhaust manifold than in the air cleaner (negative pressure), the valve opens. At this point, air is drawn into the exhaust manifold. This opening and closing is a normal pattern established by exhaust gas pulses created by the combustion process.

The incoming additional oxygen reduces hydrocarbon and carbon monoxide emissions by continuing the combustion of unburned gases in the same manner as the conventional air pump system.

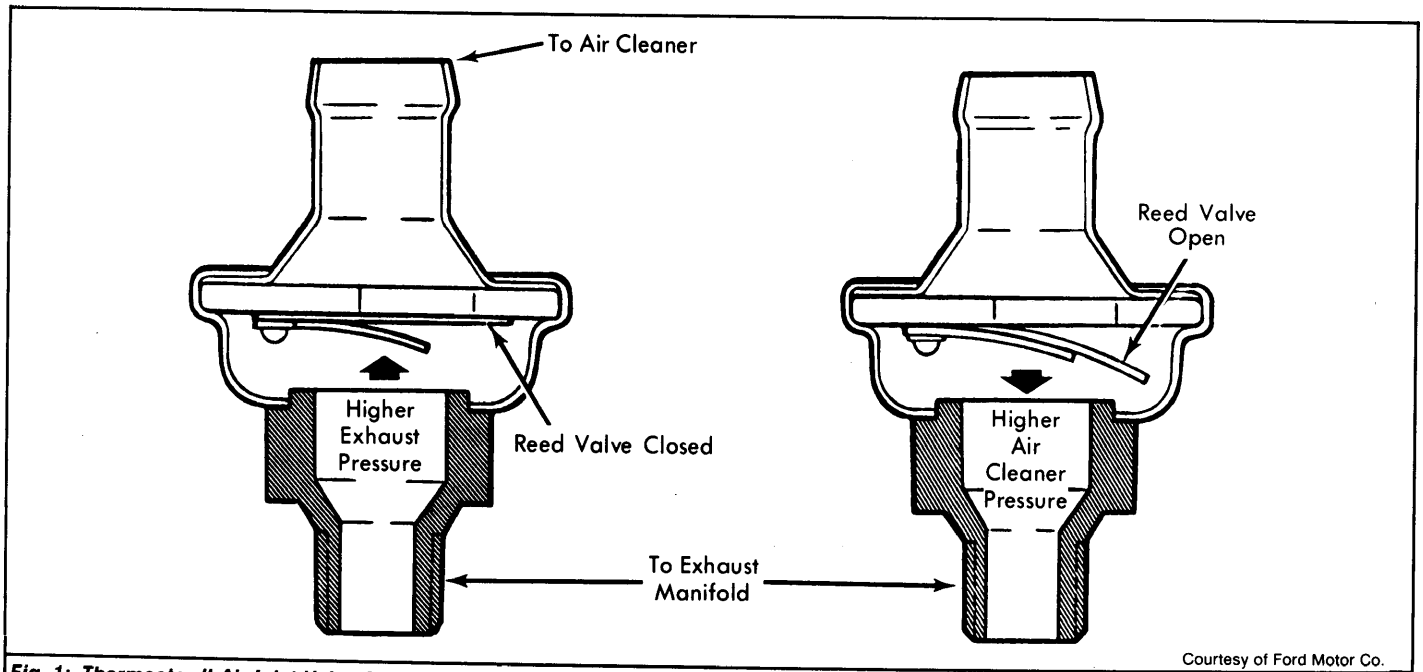
TESTING

1) With engine off, inspect hoses from pulse air valves to air cleaner for cracks, splits, etc. Inspect clamps and connections for tightness. Replace as necessary.

2) Disconnect hose from air inlet valve to air cleaner at valve. Connect Thermactor Air Valve Tester (T75L-9487) to the open end of air valve. Position hose clamp and tighten securely.

3) Squeeze test bulb on tester to force as much air from bulb as possible. Quickly release bulb and note the time it takes for bulb to return to its normal shape.

4) Bulb should remain collapsed for at least 15 seconds. If bulb returns to its normal shape in less than 15 seconds, air inlet valve is defective and should be replaced.



Courtesy of Ford Motor Co.

Fig. 1: Thermactor II Air Inlet Valve Operation