1974-79 EXHAUST EMISSION SYSTEMS
Mazda Thermostatic Air Cleaners

All Piston Engines

DESCRIPTION

The thermostatic air cleaner, used on all models, is a system which controls the temperature of the incoming air (to the carburetor). By controlling this air temperature, more accurate carburetion can be achieved, giving better combustion and emission control.

On 1976-1977 models, the air cleaner is equipped with an automatic air inlet temperature control device. This device regulates the temperature of the air entering the carburetor. A thermostat is used on the 1300cc engine, while the 1600cc engine equipped models use a thermo sensor and vacuum diaphragm.

On 1978-79 models, the thermostatic air cleaner consists of air cleaner housing with an intake air snorkel, which contains an air flow control door. This door is operated by a thermostatic device with mechanical link or by a bimetal type thermostatic device (626).

OPERATION

When the engine is cold, the thermostat in the snorkel senses the low air temperature and closes the air door to prevent entry of cold, outside air. At this point, only heated air from around the manifold shroud enters the carburetor. As the thermostat senses warmer temperatures, it begins to close off the air door to the heated air and allow outside air into the carburetor. In this manner, the temperature of incoming air can be controlled.

TESTING

1976-77 Models - Check all valves and linkage for sticking or wear. Check the thermostat spring, if equipped, to ensure it has tension. Warm engine, then remove the hot air hose. Check to make sure that the air valve closes the fresh air passage and the hot air side is open.
1978-79 Models - Check position of snorkel, condition of air filter, and position of air cleaner housing. When engine is cold, look down snorkel. Air door should be closed. When engine is hot, air door should be down. On 626, manually move air door and feel for spring tension of bimetal. If door moves freely and some tension is felt, bimetal is okay.

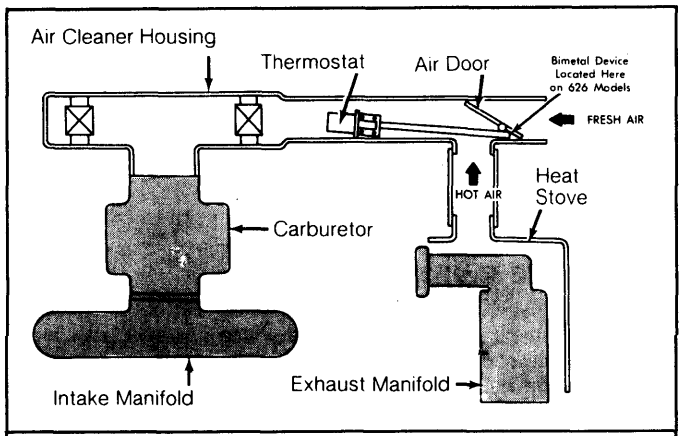

Fig. 1: Thermostatic Air Cleaner (Typical)