

# 1974-79 EXHAUST EMISSION SYSTEMS

## Saab Pulse Air Injection System

### 1979 All Models

**NOTE:** For 1974-78 models, see **AIR INJECTION SYSTEMS** article in this section.

### DESCRIPTION

The purpose of the pulse air injection system is to supply air to the engine exhaust gases and assist in the oxidation of hydrocarbons and carbon monoxide. The system consists of two check valves connected to the exhaust manifold by dual inlet pipes. One check valve feeds No. 1 and 4 cylinders, while the other check valve feeds No. 2 and 3 cylinders. Air is supplied to the check valves by a hose from the air cleaner.

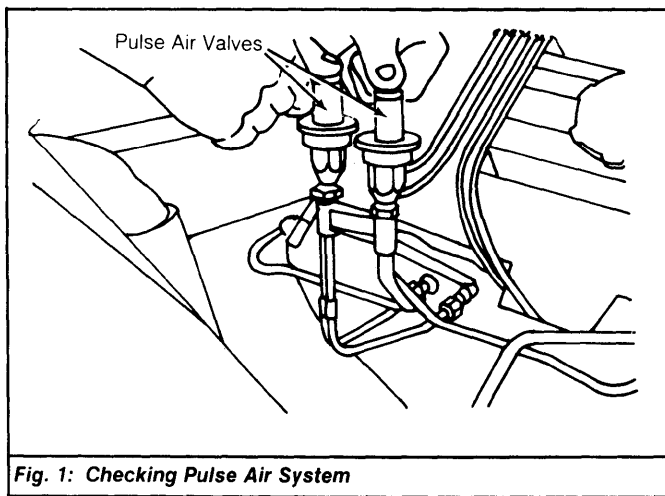


Fig. 1: Checking Pulse Air System

### OPERATION

The function of the pulse air system is to inject fresh air from the air cleaner directly into the exhaust manifold where it mixes with the exhaust gases.

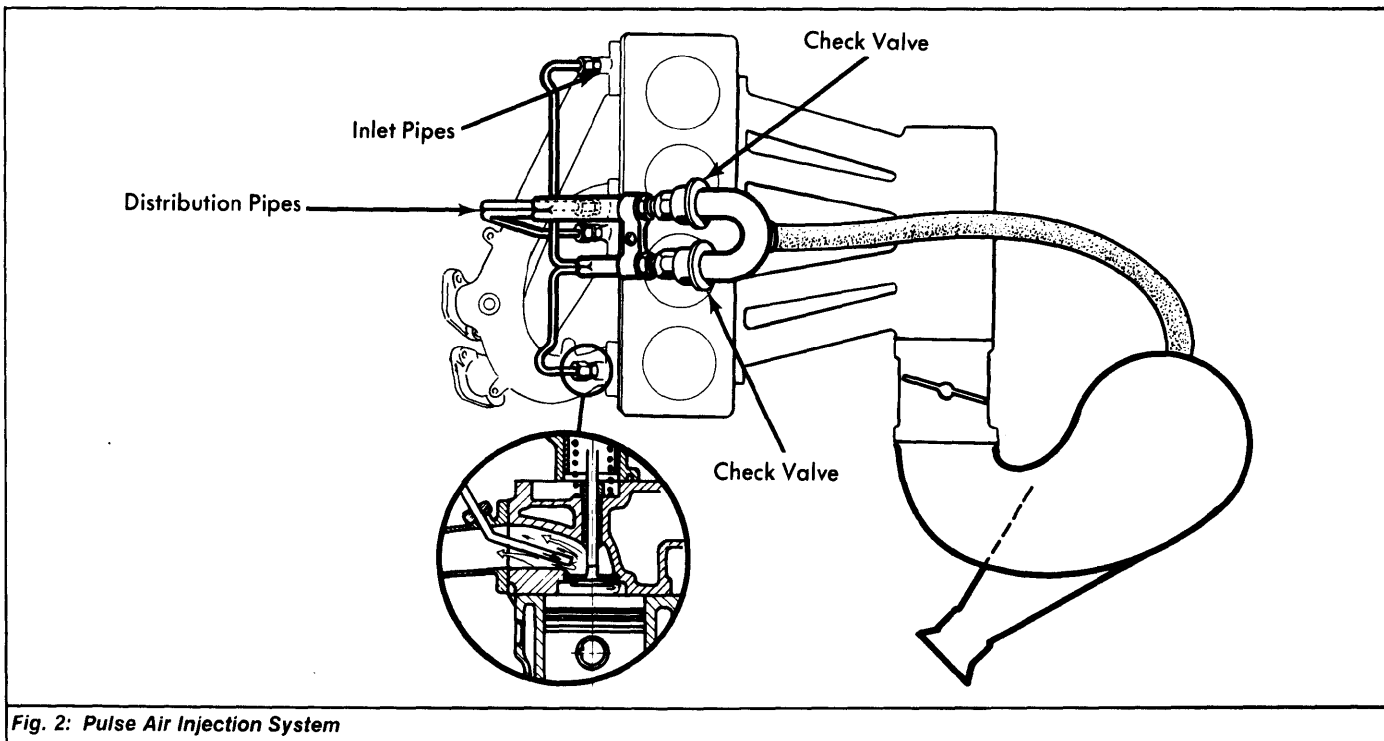


Fig. 2: Pulse Air Injection System

For a brief moment just prior to the closing of the exhaust valve (at start of intake stroke), a vacuum is created in the exhaust manifold which opens the check valves and a small amount of air is drawn into the exhaust manifold.

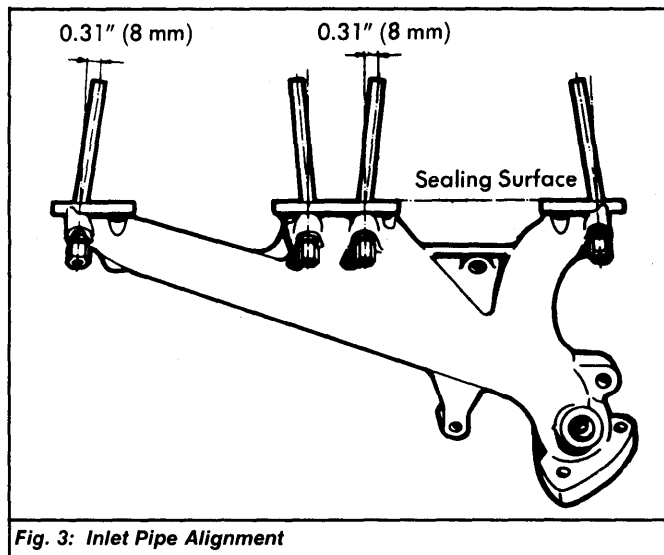


Fig. 3: Inlet Pipe Alignment

### TESTING

#### PULSE AIR SYSTEM

Remove hose between air cleaner and check valve and ensure that it is free of cracks or dents. With engine at idle speed, check that suction can be felt by placing thumbs over check valve openings. If exhaust manifold or pulse air inlet pipe are to be replaced, be sure air inlet pipes are correctly aligned before mounting exhaust manifold.