**Meets ASE Task:** (A8-E-5) P-3 Inspect and test electrical/electronically operated components and circuits of secondary air injection systems; determine needed action.

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_

Time on Task:\_\_\_\_\_\_\_\_\_\_\_\_\_

Make/Model/Year:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

VIN:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evaluation (Enter number from 4, 3, 2, 1) :\_\_\_\_\_\_\_\_\_

**Secondary Air Injection Diagnosis**

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AIR means “air injection reaction.” An AIR pump supplies additional air to the exhaust system to reduce carbon monoxide (CO) and unburned gasoline (hydrocarbons or HC) exhaust emissions. Most AIR pump systems supply air to the exhaust manifold (exhaust ports) until the engine reaches closed loop operation.

**1.** Check service information for the recommended test procedure and specifications for the secondary air injection system.

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**2.** Locate the air pump. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Electric air pump  Belt drive air pump

**3.** Carefully inspect the condition of all the hoses, check the valves and the metal lines for corrosion or damage.

**5.** Inspect the air pump drive belt (if equipped) for cracks and proper tension or electrical connections

for an electric air pump.

**6.** Based on the inspection and test results, what is the needed action?

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