**Emission Control Devices**
Chapter 42

**ACROSS**

1. The ________ _____ solenoid is normally closed and is pulsed open by the PCM during purging.

3. A ________ contains a spring-type metallic disc or reed that closes under exhaust backpressure.

5. A ________ ________ is an after treatment device used to reduce exhaust emissions outside of the engine.

10. ________ is the term used to describe when combustion gases are forced past the piston rings and into the crankcase.

12. Another name for the SAI pump is a ________.

14. One of the elements found in a catalytic convert is __________.

**DOWN**

2. ___ systems were developed to ventilate the crankcase and recirculate the vapors to the engine's induction system so they can be burned in the cylinders.

3. The catalytic converter uses a ________, which is a chemical that helps start a chemical reaction but does not enter into the chemical reaction.

4. The ___ system provides the air necessary for the oxidizing process either at the exhaust manifold or inside the catalytic converter.

6. Excessive ___ emissions are controlled by the EGR system and the catalytic converter.

7. ___ is an emission control system that lowers the amount of NOx formed during combustion.

8. One of the elements found in a catalytic convert is __________.

9. NOx reduction converters are also called __________.

11. The common term used to describe air pollution is _____, a word that combines two words: smoke and fog.

13. One of the elements found in a catalytic convert is __________.