How to Diagnose Car Exhaust Problems

Exhaust problems are among the most subtle yet potentially debilitating issues your car will face. A damaged exhaust system will interfere with the car's performance by failing to clear harmful elements from the engine, while backed-up exhaust can release carcinogens into the atmosphere and even pose a health threat if not detected. You can diagnose car exhaust problems yourself by keeping a sharp lookout for certain warning signs..

Step 1
Examine the length of the exhaust system, starting at the engine and continuing back toward the tailpipe. Look for signs of cracks or fissures along the pipes, especially where the exhaust manifold connects to the cylinder and where it connects to the main pipe. Any area where one pipe or part connects to another is apt to develop fissures or cracks, which can be spotted if you examine it thoroughly.

Step 2
Check the exhaust port near the cylinder head for signs of burned or discolored paint. It's a sign that the exhaust system is not functioning as it should.

Step 3
Listen to the engine while it is running. You can diagnose an exhaust problem by the noises it makes: a recurring hiss or unusual popping noise is usually caused by a problem in the exhaust system. It means that the muffler or the pipes are probably leaking.

Step 4
Look at the muffler of the car. Its surface should be shiny and solid if you want the exhaust system functioning as it should. Holes, punctures, or undue rust are signs of problems.

Step 5
Poke at any questionable pipes with a pair of pliers or the end of a screwdriver. Rot or corrosion may not always appear on the surface, but it will weaken the surface of the exhaust pipes. If you can poke through the pipe or feel it give under the tool, then it probably needs to be replaced.

Step 6
Start the car and check the engine's intake manifold vacuum while it is idling. It should read about 18 inches or so. If it reads lower than that, there is probably a restriction in the exhaust.

Step 7
Remove the car's catalytic converter and hold it up to a bright light: you can diagnose its effectiveness by looking through it. If you can see the light through it, the converter is working fine. If you can't, it's plugged and needs to be replaced.