

Wheels: Bruce from Boston writes, “My 1993 Toyota fails for excessive NO_x exhaust. Any suggestions about what can be done?”

Halderman: Oxides of nitrogen, abbreviated NO_x, is caused by excessive heat in the combustion chamber. Vehicle manufacturers use exhaust gas recirculation (EGR) valves to recirculate 6% to 10% of the exhaust back into the combustion chamber to reduce the peak temperature that can cause NO_x emissions. If the EGR valve or passages are clogged with carbon, this can reduce the flow of exhaust gases and could be the cause of your problem. Other possible causes include an inoperative cooling fan or a partially clogged radiator, both of which could cause the engine to run hotter than normal, contributing to the formation of NO_x in the exhaust.

