

## **10 Most Wanted Car Killers**

It pays to beware of these 10 Most Wanted Car Killers, the corrosive agents of your car's destruction from within. They tend to be stealthy killers, often escaping the notice of even the most careful car owners.

Thankfully there's a way to protect your car: get to know your car's 10 worst enemies. Then ask your Raffield Tire service advisor about scheduled maintenance. There's a quality Raffield Tire service specifically designed to protect your car from each one of the 10 Most Wanted Car Killers.

### **1. Lube and Fuel Oxidation**

Oxidation of engine oil produces harmful sludge that can reduce engine cooling, accelerate component wear and plug passages necessary for proper oil circulation and lubrication. Abrasive material then accumulates within the engine, which can destroy bearings and promote seal leakage. Likewise, oxidative by-products of fuel reduce the volumetric efficiency of fuel pumps and filters, and can result in costly fuel injector failure. Higher tailpipe emissions and poor fuel economy always follow in the footsteps of damaging fuel deposits.

### **2. Diesel Injection Clogging**

Heavy carbon residues build up on fuel injectors, thus reducing their optimal efficiency. This leads to a poor fuel spray pattern, reduced injector cooling and flow, and inefficient combustion. If left unattended, this condition can rob an engine of power and will produce excess exhaust gas smoke, poor power and fuel economy and shortened injector life.

### **3. Driveline Abrasion**

Rear differential ring and pinion gears can suffer scoring, fretting and pitting due to lack of lubrication and corrosion. Stress cracks may develop that serve to weaken the gear surface and promote further damage. Also, excessive gear and bearing noise may indicate that abrasive metallic wear is occurring within your gear set. Progressive gear wear within this unit will have a negative effect on seals, causing fluid leakage.

### **4. Fuel/Air Induction Carbon**

Gummy residues derived from residual fuel vapors have a tendency to accumulate within the air intake (plenum) over time. These deposits restrict air flow and disrupt combustion air swirl and dispersal. This all serves to decrease engine efficiency and fuel economy. Engine devices like MAF sensors, Idle Air Controllers and critical throttle plate clearances are also impeded by these gummy deposits.

### **5. Transmission Sludge**

Transmissions operate under widely adverse conditions and expose the transmission fluid to wide swings in temperature. As Automatic Transmission Fluid (ATF) ages, it forms sludge, which reduces fluid circulation and transmission cooling. Abrasive metal particles generated from aged ATF will ruin seals and cause irreversible damage to internal transmission components. A customer may eventually experience erratic shifting,

excessive vibration or noise, or even transmission failure.

### **6. Power Steering Debris**

High pressure power steering units require excellent lubricants to function properly. Damage to gears, seals, O-rings, bearings and bushings, and spool valves are dramatically increased by poor quality lubricants. Critical brass and other soft alloys rely on the proper balance of lubricant additives to ensure long power steering life and trouble-free operation.

### **7. Cooling System Scale**

Minerals found in tap water have the tendency of combining with the additives found in automotive coolant. When this happens, they form a chemical complex called “phosphate scale,” which coats the heat transfer surfaces of the radiator and heads, resulting in decreased heat-transfer efficiency. When this occurs, your car will overheat and run much hotter than it was designed to. This scale can also lead to the destruction of water pump bearings.

### **8. Brake Fluid Moisture Contamination**

The gradual deterioration of brake fluid over time happens by exposure to heat, pressure, and moisture contamination. As the brake fluid additives deplete, the fluid breaks down at an increased rate, resulting in corrosion of brake parts, poor compressibility and eventual loss of brake function.

### **9. Climate Control Mode**

Mildew, mold and spores can inhabit your automotive climate control system. The presence of moisture in air conditioning ducts is common since the air leaving the air conditioner evaporator is saturated with it. Air conditioning used continuously during hot weather provides little time for ducts to dry out. High moisture in ducts can cake with dirt and provide an environment for mold to grow. This situation leads to serious indoor air contamination problems, resulting in symptoms of illness such as headaches, watery eyes, nausea, skin disorders and fatigue.

### **10. Battery Corrosion**

Slower than normal cranking may be a sign that your battery is holding less than its optimal electric charge. Oxidation of the battery terminals and build-up of exterior dirt and corrosion accelerate the loss of current through the case of the battery, thus prematurely discharging it.