

M[✓]C™ UNDERSTANDING YOUR REPORT

ENGINES

TRANSMISSIONS

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| ALUMINUM: | PISTON SKIRTS, PISTONS, BEARINGS, HOUSINGS, THRUST WASHERS, BUSHINGS | TORQUE CONVERTER, THE CASE, THRUST WASHERS, GEAR AND VANE PUMPS |
| CHROMIUM: | COMPRESSION RINGS, LOW FRICTION BEARINGS, LINERS, CHROMATE COOLING SYSTEM | BALL AND ROLLER BEARINGS |
| COPPER: | BEARINGS, BUSHINGS, THRUST WASHERS, OIL COOLER, CLUTCHES, AND AN OIL ADDITIVE IN SOME GASOLINE ENGINE OILS. | CLUTCH PLATES, BRONZE BUSHINGS, OIL COOLER OXIDES, BRASS FITTINGS |
| IRON: | CRANKSHAFT, CYLINDERS, PISTONS, LINERS, BEARINGS, VALVE TRAIN | GEARS, BEARINGS, SHAFTS, SOME CASES, CLUTCH PLATES |
| LEAD: | BEARINGS, CONTAMINATION FROM LEADED GASOLINE | GEARS |
| TIN: | PISTON SKIRTS, BEARINGS, AND BUSHINGS. | SOME BEARING CAGES |
| SILICON: | AIRBORN DIRT, SEAL MATERIAL, GASKETS, USED IN SOME OIL ADDITIVES, SPRAY LUBRICANTS, WHEN FOUND WITH POTASSIUM INDICATES GLYCOL ISSUE | AIRBORN DIRT, SEALERS, GASKETS, USED IN SOME OIL ADDITIVES, SPRAY LUBRICANTS, WHEN FOUND WITH POTASSIUM INDICATES GLYCOL ISSUE, SAND-CASTED PARTS |
| POTASSIUM: | INDICATION OF GLYCOL OR SALTWATER INTRUSION, ADDITIVE IN SOME OILS | INDICATION OF GLYCOL OR SALTWATER INTRUSION, ADDITIVE IN SOME OILS |
| SODIUM: | FOUND IN SOME OIL ADDITIVES, GLYCOL, ENVIRONMENTAL COMTAMINANT OR SALT WATER | FOUND IN SOME OIL ADDITIVES, GLYCOL, ENVIRONMENTAL COMTAMINANT OR SALT WATER |
| WATER: | MEASURED IN % VOLUME, CAN BE INDICATION OF CONDENSATION, COOLING SYSTEM LEAK, OR OUTSIDE CONTAMINATION | |
| GLYCOL: | MEASURED IN % VOLUME, IN THE FORMULATION OF MOST COMMERCIAL COOLANTS | |
| OXIDATION: | THIS IS THE RESULTS OF OXYGEN IN THE AIR REACTING WITH THE OIL AT ELEVATED TEMPERATURES. THIS IS A NORMAL PROCESS AS THE OIL AGES. IF AN ENGINE IS OPERATED CONTINUOUSLY AT A HIGH TEMPERATURE FOR EXTENDED PERIODS, OR IF DRAIN INTERVAL IS OVER EXTENDED, OIL CHANGE IS RECOMMENDED. | |
| NITRATION: | (GAS ENGINES ONLY) FORMED DURING COMBUSTION PROCESS, LEADS TO ACCELERATED OIL DETERIORATION. | |
| SOOT: | (DIESEL ENGINES ONLY) NORMAL COMBUSTION BY PRODUCT OF DIESEL FUEL AND APPEARS AS CONTAMINANT IN THE OIL CAUSING AN INCREASE IN VISCOSITY. INDICATE AN INPROPER AIR/FUEL RATIO, DEFECTIVE AIR INTAKE, FAULTY INJECTORS, OR BLOW-BY | |
| VISCOSITY: | CALCULATED MEASUREMENT OF THE OIL'S ABILITY TO FLOW AND LUBRICATE, INDICATES IF OIL IS TOO THICK OR THIN | |
| TBN: | MEASUREMENT OF OIL'S ALKALINE BASE RESERVE, ADDITIVE IN OIL CAPABLE OF NEUTRALIZING ACIDIC CONTAMINANTS, WHEN TBN IS BELOW 3, IT IS AN INDICATION THE OIL IS NO LONGER SERVICEABLE | |
| FUEL DILUTION: | MEASURED IN % VOLUME, CAN INDICATE FAULTY COMBUSTION, RICH AIR/FUEL MIXTURE WHEN PRESENT BETWEEN 2%-5%. INJECTOR PROPBLEM OR INTERNAL FUEL LINE LEAK IS TYPICALLY INDICATED WHEN FUEL IS DETECTED AT HIGH LEVELS | |

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