

Soot is a by-product of the combustion process in a diesel engine — a carbon residue formed from fuel air and moisture in the combustion chamber after ignition. Soot particles are held in suspension by dispersant additives in the oil preventing the soot particles from agglomerating (sticking together) and attaching to the rings, pistons and liners. These suspended particles are what turn diesel engine oil black. When too much soot is generated and the additives can no longer keep it suspended, deposits will form on the rings weakening the seal between the pistons and cylinder liners. Upper end wear to rings, liners and pistons begins and if not corrected, will eventually cause severe lower end wear to the main and rod bearings, crankshaft, camshaft, cam bushing and turbo bearing.