

Additives and supplements usually fall into one of the following three groups:

1. **Metal Treatments** - These are additives that coat or plate a metal surface by forming a tenacious film that is designed to prevent wear. Metal treatments are typically very reactive and prone to rapid depletion making their useful lifetime short. Metal treatments can, in some cases, reduce engine component clearances and reduce the surface area that is available for cooling. This leads to higher oil temperatures and faster oil degradation. Some metal treatments contain solid particles that can create abrasive deposits and plug filters and oil passageways.

2. **Conventional Additive Boosters** – These packages are designed to increase the dosage of the additives that are already present in most engine oils. They do not improve the performance of the engine oil. They only serve to prolong the effective life of the additive package since the additives in your oil are used up over time. Using additive booster packages to extend your oil life can be risky since oil contaminants have the opportunity to accumulate and cause accelerated wear in your engine.

3. **Boundary Lubrication Packages** - These are lubricant additive packages that are composed of a balance of base oil, Viscosity Index improvers, corrosion inhibitors, detergents, dispersants and anti-wear additives. These packages have similarities to conventional engine oil but offer superior performance under the boundary lubrication regime. Boundary lubrication exists where higher than normal loads or temperatures create friction between metal surfaces that are forced to contact and rub against one another. This causes rapidly accelerated and often severe wear. Boundary lubricants are not commonly found in conventional engine oils and, as such, their addition can provide excellent benefits that include reduction in wear and temperature and enhanced equipment life and performance.

Most importantly, if you are considering using an additive, you should find out as much as possible about its composition and function. Measure the performance of the additive by monitoring fuel economy and wear levels for two oil changes prior and two oil changes after the application of the additive. Improved performance is measurable and will help you choose the best lubricant for your equipment.