Do Motor Oil Additives Work?

John Baker | Aug 05, 2020 8:16 AM

The shelves at your local auto parts store are full of aftermarket motor oil additives and oil treatments that promise several benefits, such as increased fuel economy, reduced friction, maximum horsepower and improved engine cleanliness. Do oil additives work? And should you use them?

To provide this added performance, aftermarket motor oil additives use different chemical components to augment the motor oil formula.

Some products have advertised materials like **Teflon**, **molybdenum** or **graphite**. Some have used **chlorine**, **which can be highly corrosive when mixed with water**.



Should you use motor oil additives?

The fact is, <u>motor oil must fulfill several responsibilities</u>. While wear protection is top-of-mind for most motorists, your motor oil must also...

- Help keep engine parts clean by holding contaminants in suspension, so they don't form harmful deposits on metal surfaces
- Cool engine parts by absorbing heat and carrying it to a place where it can be safely dissipated, such as an oil cooler or the oil pan

- Act as a dynamic seal to minimize combustion byproducts from contaminating the lubricating system, such as the piston ring/cylinder wall interface
- Dampen shock to help protect against wear
- **Prevent corrosion** to engine parts by chemically neutralizing corrosive products or setting up a barrier between the components and the corrosive material
- Transfer energy, such as in the case of hydraulic equipment or valve lifters in an automotive engine



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Motor oil additives can't do everything

The chemists and engineers at motor oil companies work hard to fine-tune their formulations to fulfill all the requirements of a motor oil. While aftermarket additives may claim to boost performance in one or two areas, they can't hit them all.

What's more, aftermarket oil additives are not necessary in fully formulated oils. High-quality engine oils are blended with additives that are carefully balanced to be synergistic, performing well together.

Take a motor oil formulated for today's advanced engines, like a <u>turbocharged</u>, <u>direct-injection model</u>.

The oil not only has to fight wear, it must stand up to the intense heat generated by the turbo, maintain protection despite potential <u>fuel dilution</u> reducing oil viscosity, <u>combat low-speed pre-ignition</u> in some cases and maximize fuel economy. And it must do it throughout today's longer oil-change intervals without missing a beat.

Modern oils, in essence, are nearly as sophisticated as the engines in which they're used. Tampering with the balance by adding other chemicals can adversely affect overall oil performance, sometimes dramatically.

Buyer beware

So, do motor oil additives work and should you use them?

The decision to use aftermarket additives is ultimately yours to make but be wary of performance claims. Some additive manufacturers have been <u>charged by the FTC</u> with making false claims in the past.

For the record, AMSOIL recommends against using aftermarket additives.

AMSOIL synthetic motor oils are fully formulated to provide superior protection and performance; use of aftermarket additives will detract from their performance and possibly lead to engine failure. Use of aftermarket oil additives not approved by AMSOIL INC. will void the AMSOIL Limited Warranty.

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