

Synthetic oil vs. conventional oil

Most owners know that synthetic motor oils typically perform better than conventional motor oils in providing protection for your equipment, but might not know why. What's the real difference between synthetic and conventional oil? Pretty much everything!

Conventional and synthetic oils both begin in the ground. But that's where the similarities end.

Synthetic oil is not only refined but also distilled, purified and broken down into its basic molecules. This process not only removes more impurities from the crude oil but also enables individual molecules in the oil to be tailored to the demands of modern engines. These customized molecules provide higher levels of protection and performance than conventional oils. But the synthetic base oil is only half the story. The correct blend of additives must go into the mix to create the oil.

Synthetics typically outperform conventional motor oils in providing more protection for your equipment. Here's how all that chemistry translates to the real world:

Keep your engine cleaner

As oil circulates through your engine it can pick up deposits. Over time, conventional oils can sometimes form sludge, which can reduce your engine's efficiency and, ultimately, reduce the life of your engine. Synthetic motor oils contain fewer impurities compared to conventional motor oils and can better resist the formation of sludge thereby preventing deposits from forming in your engine.

Offer greater engine wear protection

Engine parts are in constant contact with each other. They're also moving at high speeds. In the extreme environment of your engine, components can wear and break down. Your motor oil is the protective barrier between these components. As conventional oils break down, their ability to prevent engine wear diminishes. Synthetic motor oils, on the other hand, retain their wear protection properties for a much longer time, increasing engine life.

Flow better in low temperatures

When your equipment sits idle (let's say overnight), the oil settles. But when you fire up the ignition, it begins flowing through critical engine parts to protect against friction. With conventional oils, it takes more time before

they are able to flow smoothly through the engine. During the cold winter months, or if you live in an extremely cold environment, this flow process takes even longer. Synthetic motor oils, however, are engineered to flow quickly even at low temperatures, and they start protecting your engine right after your equipment is started.

Protect better at high temperatures

When running, your equipment can get hot. Really, really hot! Over time, the high temperatures in your engine can cause conventional motor oils to break down or evaporate exposing your equipment to wear. Synthetic motor oils are engineered to resist these high temperatures, which is especially important if you're operating in hot climates.

Protect critical turbocharger parts

To meet consumer demand, automakers are building cars with smaller engines (for greater fuel efficiency) but adding turbochargers (to boost power). It has already been mentioned how equipment, specifically engines run at high temperatures, which can break down conventional oils faster, but today's turbocharged engines are even more aggressive. The shaft inside a turbocharger can spin upwards of 200,000 revolutions per minute, so it's critical that your motor oil can get to that shaft and lubricate it properly very quickly. Conventional oils can break down faster under these conditions and leave deposits on turbocharger components, which can lead to failure. Synthetic motor oils can protect these components much better than conventional oils, keeping them operating at peak performance and boosting your engine's power.

While synthetics as a motor oil category provide better protection than conventional oils, not all synthetics are created equal. Mycroleum recommends you learn about the science of synthetic motor oils. Check out the specifics of the brand you are considering. There are several standardized tests performed on all oils. Check each brand for its abilities and compare it to the functionality you need completed. As always, you can ask any questions of the Mycroleum experts at info@mycroleum.com.