

LUBE

TECHNI-GRAM



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HIGH-MILEAGE OIL FOR OLD AND NEW CARS?

Recently, I have received inquiries about the engine oils several major oil companies are marketing as High-Mileage Engine Oil or Older Car Formula and whether there is any validity or difference in their performance or is it just marketing hype? There are two schools of thought on this question.

Better Than Conventional Majors

For most of the high-mileage oil or older car formula engine oils, the marketing is focused on cleaning deposits and sludge, conditioning seals, reducing oil consumption and protecting engine parts. The theory is that as a vehicle gets older, its mechanical performance decreases. The major oil promotions explain that the oil is more rapidly compromised, making the oil too thick when cold and too thin when hot.

The oil molecules break down more quickly in an older engine, rendering them less able to lubricate. Over time, engine seals deteriorate, gaskets lose their effectiveness and oil consumption increases. The end result is an engine that is no longer capable of functioning at peak efficiency.

High-mileage motor oils cost more than conventional oils, but less than higher performance specialty products such as SWEPCO's 300 Series Supreme Formula Engine Oils. The key reason for the approximate one dollar per quart increase in price of the high mileage, or older vehicle oils when compared to conventional oils, is based on the fact that the major oil companies do formulate the oils using better base stocks than the oils that are sold to the mass automobile buying public via auto parts stores or quick change lube operations. These oils also make claims of increased additives such as seal conditioners that reduce leakage, and additives that provide protection against engine deposits that reduce compression.

For many years, SWEPCO has successfully blended a premium quality engine oil which has provided maximum superior protection for engines in both segments of the engine oil market:

- Heavy Duty Diesel Engine Oil (HDDEO)
- Passenger Car Motor Oil (PCMO)

As an ISO 9001 Certified Industry Innovator and Leader, we take great pride in producing the world's most technologically advanced lubricants...lubricants capable of protecting equipment assets in even the most severe operating conditions. SWEPCO's 300 Series Engine Oils have always provided the maximum performance for new and older passenger cars, as the added fortification and protective additive chemistry that was good for heavy duty diesel engine oils was also good for smaller gasoline engine oils in areas such as temperature stability, wear control, oil life and corrosion protection.



... to keep it running

New School Of Thought

Different forces are driving heavy duty diesel and automotive engine oil performance requirements today. Stricter emissions and EGR regulations are a main factor driving diesel engine oil performance requirements. These diesel trends require a huge focus on more detergency/dispersants, better acid neutralization, better high temperature oxidation resistance, and better anti-wear properties.

The trends driving automotive and light truck engine oil requirements have more to do with fuel economy (CAFE-27.5MPG requirement), emissions reduction, catalytic converter life, extended drain intervals with less make-up oil (volatility) and engine design (lighter engines, smaller lubricant capacities, narrow oil channels).

One of the major contributors to the separation of one oil for both diesel and automotive engine requirements comes down to the limitation of the maximum phosphorus content in new passenger car engine oils. The old, reliable anti-wear workhorse, zincdialkyldithiophosphate (ZDDP), which was the backbone of engine oils for decades, has declined in passenger car engine oil formulations from .12% in 1994 to .10% under the current GF-3 specification. The proposed GF-4 phosphorus limit is .08% and numerous automobile OEM's would like to see .05% or less. Lower phosphorus levels lengthen catalytic converter life. Since there has not been enough field data generated on low phosphorus oils to assure backward compatibility of GF-4 oils, passenger car engine oil marketers need to be cautious in the way they promote the passenger car engine oils.

It is theorized that this lack of compatibility data could be the reason most major oil companies are introducing "older car formulas" in the past few years. The oils formulated for older cars have had higher phosphorus and sulfur levels. The "older car formula" is a quick fix to address backward serviceability problems. In the next three years, most of the fleet in the U.S. would require GF-4 type oils. For example, in 2007 and 2008, the 2004 models would be considered older cars. Consumers of a 2004 model may try to use "older car formula" to protect their investment in 2008. This could lead to a very sticky situation for major oil company marketers...at that time, marketers could face serious consequences for marketing an "older car formula" for 2004 models.