



CENTRAL NEWS[®]

Fuel Savings from Axle Lubricants

By Blaine Ballentine

The trend in automotive gear lubricants is thinner for fuel economy. It makes sense (assuming we want to lower carbon emissions at any cost). Viscosity is the resistance to flow, so lower viscosity means less energy is wasted in dragging the gears through oil, pumping, and churning.

The efficiency gained by using thinner oil is realized at low load levels. As load increases, the losses to viscous drag make less difference and are just a small percentage of the energy transferred through the gearbox. Under heavy loads, more viscous lubricants are actually more efficient because they carry more load and reduce friction between the gears.

Increasingly thin oils may make sense to improve fuel efficiency in passenger cars that rarely have their gears heavily loaded. On the other hand, more viscous gear lubes may actually save fuel in field tractors that are nearly always operated at full load.

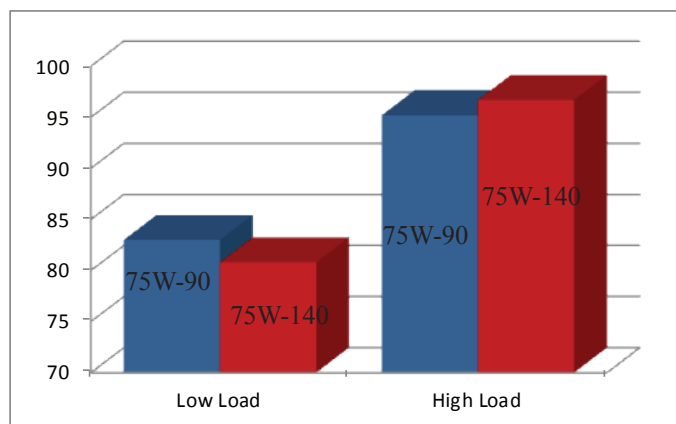
Temperature can be used as a gauge. If a thicker fluid lowers gearbox temperature, less energy is being wasted as heat and more energy goes to producing

work—the definition of increased efficiency.

Cen-Pe-Co SAE 80W-90 is somewhat thicker than SAE 75W-90 at typical gearboxes operating temperatures, around 150° F. Our SAE 90 is even thicker at operating temperatures.

Cen-Pe-Co offers Synthetic Gear Lube SAE 75W-90 for extended drains and better fuel economy in low load applications. Cen-Pe-Co Hy-Torque Gear Lube is recommended for reduced wear and better fuel economy in heavily loaded gearboxes.

Gear Efficiency (%)



Industry News - Blaine Ballentine

The **Minnesota mandate for B10**, 10% biodiesel blended into petroleum-based fuel, kicks in July 1. September 30 the requirement drops back to B5 to reduce cold flow problems. Then from 2015 through 2017 the mandate is for B10 April 15 through September 30, and B5 the rest of the year. Minnesota Farmers and others who store fuel during the winter may want to wait until October to fill their tanks and use a reliable fuel additive to prevent winter fuel gelling.

AAA E15 Warning The EPA has approved the use of E15, a 15% ethanol blended gasoline, in 2001 model-year and newer vehicles. The problem is that the auto manufacturers have not. The AAA recommends checking your car's manual before filling with E15.

Other than flex-fuel vehicles designed to run on E85, the use of E15 in many vehicles manufactured before 2012 is not recommended and will not support warranties. BMW, Chrysler, Ford, Honda, KIA, Mercedes Benz, Nissan, and Toyota are among the manufacturers that do not recommend E15 for their non-flex-fuel vehicles.

Ethanol blends can be corrosive, aggressive toward gaskets and seals, and tend to enlean the air-fuel mixture. Vehicles manufactured in the past 20 years have more resistant fuel system components and computers designed to work with E10, but not E15.

Fuel additives cannot stop the attack on elastomers or correct an air fuel mixture that is too lean, but a good gasoline additive, such as Cen-Pe-Co Gas O Klenz can stop corrosion, which is one of the biggest causes of fuel system damage.

Zinc and Flat Tappet Cams Some people have still not received the memo that modern PCMOs (Passenger Car Motor Oils) contain less anti-wear additive than older formulations and are not suitable in some older applications. The Engine Rebuilders Association, AERA, published Technical Bulletin 2623, "Flat Tappet Camshaft Break-in Procedure" in the October – December 2013 issue of *Engine Professional*. Crane Cams was cited as the source of the information.

The phosphorus limit in PCMOs was dropped to 800 ppm in 2004 to protect catalytic converters. Phosphorus is part of a zinc anti-wear additive, but the marketplace just recognizes the cause of early cam failures as a reduction in zinc. Cen-Pe-Co offers oils with high levels of zinc suitable for flat tappet cams, even during break-in, depending on the application.

Bulk Oil is more likely to be off-spec than bottled oil. It is handled more times, and therefore, more likely to become contaminated, or cross-contaminated with other oils. Bulk oil also makes it easier for those who lack integrity to substitute a low quality or off-spec product for a higher quality, higher priced product.

The API collected samples from 1,800 bulk oil tanks over the past five years. Testing revealed that 20% did not meet API motor oil performance standards. Stated differently, one in five bulk oil samples did not meet the specifications claimed by the vendor.



5 Generations of Olsons

A lot of things can happen in 42 years. Friendship can continue or go on and on.

In 1971, I met a very interesting farmer. His name is Oscar Olson. He always treated me not only as sales representative but also as a friend. He would always give me some good advice about selling in Champaign County and good advice about raising a family. His wife Hilda would always have a cup of hot tea waiting for me.

When I met them, they had three sons working together, Meryvn, Vernon, and Wendell. Once you met the boys, you would never forget them. They would play tricks on me. You could never imagine as the years went on that the boys would go on their own and have three different farms. They all became the best customers, and friends, and very good farmers. All three boys had sons that became customers.

Oscar passed away in 1997; Hilda still lives in the same house where she and Oscar farmed. She will soon be 100 years old and still will fix you a hot cup of tea.

One of the sons, Vernon, married a wonderful girl named Dottie. She also will fix you a cup of hot tea at any time. In 2005, Vernon passed away with cancer.

Vernon and Dottie have a son Gary and he married a local gal named Nancy. Now if you think Hilda and Dottie are nice, you should meet Nancy. She not only will fix tea, I have eaten lunch with them many times, sometimes in the field when the boys are harvesting.

Gary is now over 50 years old and Gary and Nancy have two sons and a daughter. They all farm with their Dad and Mom. One of the sons is married to a girl named Nicole, and they have two children, Owen and Payton.

Now the rest of the story is that I gave the 5th generation of the Olson's a free Cen-Pe-Co toy truck and sold him a quart of Cen-Pe-Co Oil.

Not only was it great to do business with the 5th generation, but I was so lucky to meet Oscar and Hilda. I continue to have a good friendship with the family that has grown stronger over the years. I only hope it will continue. The story will go on and on.

Paul J. Hart