

CENTRAL NEWS

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ANTIQUUE LUBRICANTS

By Blaine Ballentine, Lubrication Engineer

Central Petroleum Company has become involved in tractor pulling because it helps us sell our primary products to farmers. The specialty products like Cen-Pe-Co Super Pulling Oil help us sell our mainstream products like Cen-Pe-Co S-3 Engine Oil. Tractor pulling is a good fit for us because tractor pulling enthusiasts are predominantly farmers.

Another similar opportunity exists with antique tractors. Antique tractors have special needs, and we have the specialty products to meet those needs. The antique tractor enthusiasts are predominantly farmers. Many antique tractor shows take place at county fairs and you probably have access to them at the local level. Again, you can use our specialty products to help gain access to more accounts and sell more of our mainstream products.

This article is to discuss the special needs of antique tractors.



Ron Miller (on left) stands with George Hartman in front of his 1918 Rumely Oil Pull tractor at this year's "Old-Time Threshing and Antique Engine Show" in Freeport, Illinois. Ron, who is an expert on Rumelys, performed some of the restoration work on the Rumely tractor in the Smithsonian Institute, and owns 13 Rumely tractors. He uses Cen-Pe-Co Antique Engine Oil.

Oil companies were not allowed to exhibit at this show until George showed the fair board our Antique Engine Oil and other specialty products designed to help preserve antique tractors. Now they allow one oil exhibitor, and George has no competition at this fair.

ANTIQUUE TRACTORS

After restoring a vintage tractor, searching for parts, assembling every bolt and screw, researching details of the tractor of how it left the factory right down to the last decal, the owner is not going to use just any oil in his pride and joy. So what is the best oil?

If the engine has just been rebuilt, Cen-Pe-Co S-3 Oil is not the best oil for break-in. During the first oil change interval, you want the engine to wear so the rings and cylinder walls will polish each other and form a tight seal. Cen-Pe-Co S-3 Oil is not good at allowing wear, and therefore not good for break-in. Cen-Pe-Co Non-Detergent Oil SAE 20W would be a good choice for breaking in an antique engine.

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CEN-PE-CO HISTORY THE BEGINNING YEARS

When Central Petroleum Company opened for business in 1911, it was located in a one-room office in the American Trust Building in downtown Cleveland, Ohio. It started only one month after the United States Supreme Court ruled that John D. Rockefeller's Standard Oil Company, which was founded and still headquartered in Cleveland, was a monopoly and must be broken up. Many other independent companies started around the same time as Central with a similar type of operation, but very few are still around. Most of them went out of business in the matter of a few short years. Many of those who did survive then were unable to make it through the Great Depression of the 1930's.

Back in 1911, there was very little demand for lubricants in the farm market so our principal sales for the first few years were Columbia Paints and Coatings. The very first company order was

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purchased by Mr. L. R. Canfield of the C & E Traction Company from Chardon, Ohio. It called for one keg (13 gallons) of Columbia Flexo Rubber Paint at 28 cents per gallon. V.A. Bruner sent in the next three orders. Two of them were shipped to Davenport, Iowa (oil and grease) and the third for 55 gallons of Columbia Cement Paint Maroon at 55 cents per gallon, was sent to Cedar Rapids, Iowa. The fifth order, for a 30-gallon drum of oil, went to Leavenworth, Kansas and was sold by H.C. Bruner, probably related to the above V.A. Of the next ten orders, two went to Ohio and were sold by F.H. Abel; one for Elkart, Indiana sold by Mr. Nunamaker; and the remaining seven were all sold by Mr. Greenwood. These were all shipped to different companies in Topeka, Kansas.

By 1916, the price list already had the Cen-Pe-Co Diamond Emblem on the cover. Motorene Auto Oils (for pleasure cars) were sold in grades A (light), B, C, D, and E (extra heavy). There were no such things as specifications for "SAE" grades at that time. From this time, and up until the late 1920's, oil was shipped in either wooden barrels or half-barrels, or 50-gallon or 30-gallon steel drums. The wooden barrels were 6 cents per gallon cheaper than steel drums. Salesmen at that time could order a special package consisting of a barrel of oil and 10 empty 5-gallon cans, which he in turn could fill and resell individually to his customers. It was a very successful program at the time. This price list also introduced "Fly-Nox" insecticide at 50 cents per gallon in wooden barrels. "Fly-Nox" was replaced in 1921 by "Never-Lite Fly Oil" at a very expensive \$1.10 per gallon.

Columbia Fibre Coating came in four different colors, black, maroon, bright red, and slate. Black was 45 cents per gallon and the other colors were 60 cents per gallon in barrel quantity. However, they had many problems with the colored coatings. Our leading paints back then were "Columbia Quality Brand House Paint," "Columbia Service Brand Paints," and "Finest Brand Bright Red Barn Paint."

In 1918, Central activated a salesman who helped show the company that full-time salespeople were the way to head in the future. Levi S. Wengerd, selling in Pennsylvania and Maryland, back in those days had sales months of \$5,000 and \$6,000, which would be equal to around \$70,000 and higher at today's prices. The tradition he established way back then has been carried on over the years by his son, Logan, and now by his grandson, Joe.

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The most difficult need the typical antique tractor engine has is for rust protection. The typical antique tractor sees very little hard work, and endures long periods of storage.

According to Ford, engine corrosion of a tractor parked for three weeks under adverse conditions can cause 60 hours of normal wear. The oil needs to be fortified with special corrosion inhibitors to prevent this type of wear.

Cen-Pe-Co S-3 Engine Oil contains such corrosion inhibitors, and reduces wear when the engine is running, too. However, many owners do not want to use a modern 15W-40 in their antique tractors. Part of that reason may date back to the 1950's when detergent oils were becoming popular.

Many tractors that had been run on non-detergent oils developed deposits around the rings, and actually sealed on carbon instead of rings. After cleaning the rings with detergent oil, if there was still temper in the rings, they would reseal and oil consumption would go down. However, in most cases, the carbon did not allow the oil to carry heat away from the rings properly, and the heat destroyed the temper in the rings. They would not flex out against the cylinder wall after the carbon was removed and the oil would blow right past.

Even today, some people are afraid to change brands or use detergent oil in an old engine because they fear it may start consuming oil. If cleaning the engine causes it to consume oil, the engine is already sealing on carbon instead of rings, it is already burning oil and in critical condition. Dirt does not hold an engine together.

In the restored antique, there is no reason to avoid detergent oil. However, we understand when the re-builder, who insisted on genuine original parts, wants to use the oil originally recommended.

Prior to the 50's, oils did not have many, if any, additives. The primary differences in oils were base oil and viscosity. The best oils were 100% pure paraffin base, and Central Petroleum Company was manufacturing them back when those antiques were new. Cen-Pe-Co Non-Detergent Oil matches what the old tractors called for.

A better choice is Cen-Pe-Co Antique Engine Oil. It is a non-detergent oil with special rust inhibitors added. These are the same rust inhibitors used to qualify oils for the Mil-L-21260 specification for the United States Military for vehicles in storage.

The military uses Mil-L-21260 oils in tanks, jeeps, and other vehicles for up to three years of storage. They must be ready at a moment's notice, so the same oil is used to lubricate the engine when it is put into service.

These special corrosion inhibitors deal with the antique tractor's wear problem--engine rust during storage.

FUEL

The biggest challenge for oil in an antique tractor is also the biggest problem for fuel storage. After a few months the fuel gets stale and the beautifully restored tractor does not run worth a darn.

If moisture gets into the fuel, it can rust various fuel system components. If the fuel is diesel or kerosene, moisture can lead to bacterial growth and even more corrosion, filter plugging, and damage.

The fuel should be treated with a fuel stabilizer and rust inhibitor prior to storage such as Cen-Pe-Co Gas-O-Klenz or Cen-Pe-Co Diesel Klenz, depending on the type of fuel.

If the tractor has a gasoline engine with soft valve seats, it was designed for leaded gasoline. Cen-Pe-Co Genuine

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Lead can be added to make real leaded gasoline. The lead was a high temperature lubricant that protected exhaust valve seats and valves. Unless the seats are hardened, lead is a necessity, particularly if the engine is ever put under load.

RUMELY OIL PULL TRACTORS

Two types of tractors deserve special attention in this article, Rumely Oil Pull tractors and steam tractors. Rumely manufactured steam and/or "Oil Pull" tractors, until they were purchased by Allis Chalmers in 1931.

Rumely Oil Pull tractors were an alternative to steam tractors back in the teens and 20's. They were a fascinating tractor that started on gasoline, and then burned kerosene, which was mixed with air by a carburetor. Cooling was accomplished by injecting water and a cooling system that used oil instead of antifreeze.

The engine called for an SAE 60 or SAE 70 non-detergent oil. Needless to say, these are not available just anywhere. Cen-Pe-Co Antique Engine Oil is available in these viscosities.

The cooling system called for "any nonfreezing oil with a minimum boiling point of 400° F." The cooling system is vented such that water contamination from condensation is likely, so the rust inhibitors make our Antique Engine Oil SAE 20W a good choice.

GREASE

The Rumely Oil Pulls and the steam tractors shared similar drive trains. The drive gears were open spur gears and the steering gears were often open worm gears. (See Figure 1.)



Figure 1

Any grease will work on these gears, but Cen-Pe-Co Topsall Open Gear Lube will outlast anything we know of. Repeat sales on this product are not very good because it seems to last forever. Cen-Pe-Co Fifth Wheel Grease is also an excellent choice for these open gears.

Cen-Pe-Co Syntho Lube is the best grease to put in the grease cups found on Rumelys and steam powered tractors. The grease cups hold a small amount of grease and slowly feed it to the lubrication point. Some grease cups are manual, forcing grease in when they are turned, and others are automatic. (See Figure 2.)

Drip oilers also appear on Rumelys and steam tractors.

They are similar to grease cups, but hold oil instead of grease. Any viscous oil (SAE 50, 90, or 140) should work nicely, and those on steam tractors often use the same steam cylinder oil as the cylinder.

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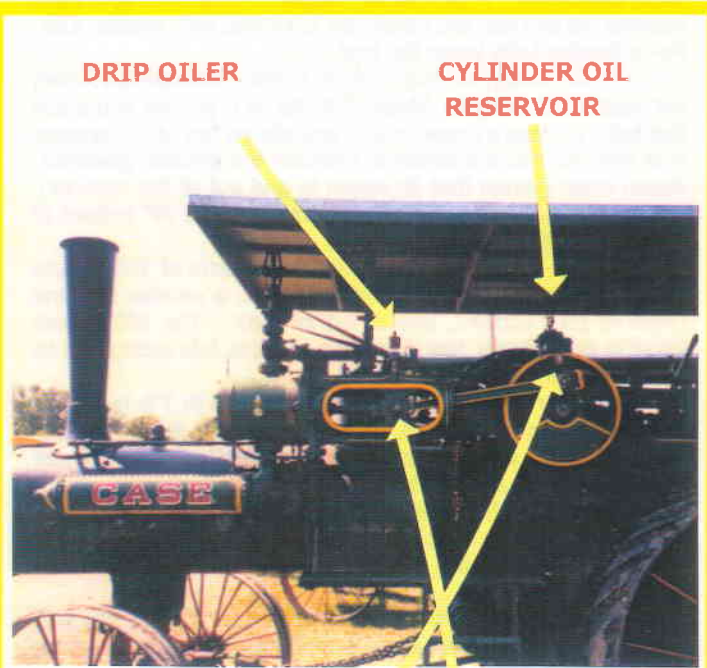


Figure 2

GREASE CUPS

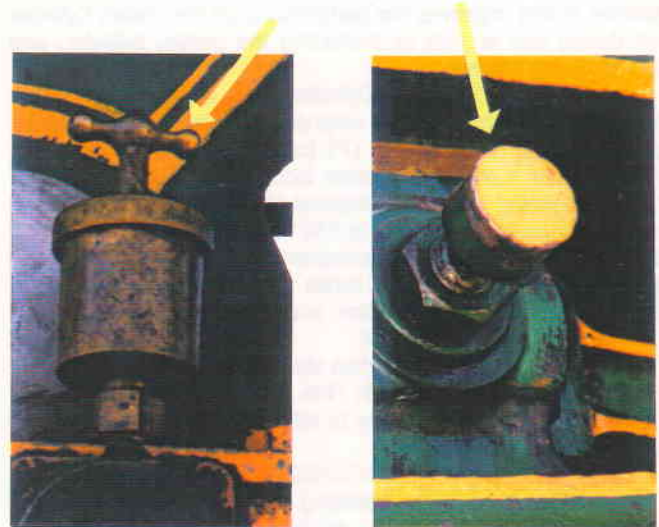


Figure 2

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STEAM CYLINDER OIL

Steam engines are fairly simple, but different from internal combustion engines. The bulk of these huge machines is to burn coal and create steam. Steam pushes the piston in both directions. A one-stroke engine? The rod and main bearings are exposed and usually are lubricated with grease, Cen-Pe-Co Syntho Lube being the best.

Obviously, oil does not go in the crankcase and does not need to be changed. Steam Cylinder oil is poured into a box that holds perhaps a couple quarts and sits on top of the engine. It is injected into the steam to lubricate the throttle, governor, steam chest (valves that let steam in and out of the cylinder), and the piston. Hence, the name "steam cylinder oil" instead of "steam engine oil."

Cen-Pe-Co Steam Cylinder Oil consists of 100% Pure Paraffin Base Bright Stock, acidless tallow, a passive Extreme Pressure (EP) additive, and a rust inhibitor. The 100% Pure Paraffin Base Bright Stock provides a super lubricating film to those of other base oils.

Other steam cylinder oils use from zero to 7% tallow oil. Some products use lard oil, which can lead to deposits under some conditions, instead of tallow oil. Cen-Pe-Co Steam Cylinder Oil contains 10% acidless tallow oil.

The acidless tallow is made from cattle and hog renderings. It helps the oil emulsify with water or steam, and it is an excellent lubricant in certain applications, which include steam cylinders.

Probably the largest lubrication use of tallow oils is in metalworking fluids. It enhances the lubricity of the fluid, leaving the metal with a nice finish.

The passive EP additive is also shared with metalworking fluids. The passive EP additives are used primarily for working nonferrous metals where they carry EP loads, but without staining the piece like ordinary EP additives.

Finally, Cen-Pe-Co Steam Cylinder Oil contains the same corrosion inhibitor used in Cen-Pe-Co Antique Engine Oil and the Mil-L-21260. Due to the polar nature and miscibility of this additive, it also improves the performance of the Steam Cylinder Oil during use as well as protecting the piston, cylinder, and valves during storage.

Cen-Pe-Co Steam Cylinder Oil is designed for steam tractors and other steam engines operating under similar pressures and temperatures (75 to 150 PSI and up to 400°). This includes many of the steam locomotives, but not some of the later model steam locomotives that ran on "super heat," steam temperatures of 600 to 650° F., and used oil so thick it barely poured out of its container. It also includes many stationary engines, but not those that recirculate the steam. Generally, if it is a steam tractor, you are safe in recommending Cen-Pe-Co Steam Cylinder Oil.

The best oils back when steam tractors were new were 100% Pure Paraffin Base with 10% acidless tallow oil. Perhaps Cen-Pe-Co is the only company to still offer such a product, with some modern advantages.

CONCLUSION

Please consider attending any antique shows in your area, and perhaps becoming an exhibitor, if you are not doing so already. It is another approach to your prospective customers, and we have the specialty products for their unique application.

Cen-Pe-Co was selling All-American 100% pure paraffin base lubricants for those antique tractors when they were new, and we still do.

**CONGRATULATIONS,
BILL MILLER!**



Bill Miller has won second place in Grand National Points for the second year in a row in the NTPA Pro-Stock class with his IH 1466. Bill has been the most consistently successful and accumulated more points with his 1466 than any other driver in his division over the past two years. He also took seventh place with his IH 1066.

Bill is a farmer and owner/operator of Miller Logging in Dubuque, Iowa. He has been buying Cen-Pe-Co products from Denny Fleece since 1978 and uses Cen-Pe-Co oil and fuel additive in his pulling tractors.

Bill has been tractor pulling for 18 years, 10 of those years at the national level. We congratulate Bill and his pulling team for their success in 1998, and we look forward to 1999.