

FLUID POWER JOURNAL

March/April 2009

EU-Ecolable Biohydraulic Oils

Separating
Timber Panels
with vacuum cups

Mathematical
Modeling

for Pump-Controlled
System of Hydraulic
Drive Unit



How many different jobs do we all do in a day? If you're like most managers, you wear a lot of hats. You probably manage people, resources, equipment, timelines, budgets, and more. Among businesses in fleet or construction, most have general managers, human resource managers, equipment managers, and fleet or operations managers; but almost none has a Fuel Manager. Perhaps not surprising, but consider that fuel is now the highest operating expense in these industries – higher than equipment and even labor. Without effective fuel management, your company is wasting thousands of dollars each month. Fuel is just like any other expense. It can be controlled only if it is measured, along with a number of other critical operating practices. But you need access to all that information.

The good news is that technology exists so just about anyone can become a fuel manager. Good fuel management includes route planning, measuring fuel consumption, and managing equipment operating practices.

First, you can add a GPS unit to all of your fleet vehicles. For a modest expense, you can put billions of dollars worth of technology to work for you to help plan your fleet's daily travel. GPS – or Global Positioning System – employs 27 earth-orbiting satellites, which were developed by the U.S. military. Today it is available for everybody in a pocket-sized receiver that finds your exact position anywhere in the world. The system is ideal for

planning travel routes, avoiding certain roads, and reducing drive time. Less driving cuts fuel costs and GPS can track distance traveled, but it can't track fuel consumption or what you have saved. You can do that yourself using simple math.

Now that you can minimize your travel time with GPS, what about more important data directly related to fuel consumption? There is new technology available that can show you exactly where all that fuel goes. Once you have that data, you are on your way to better fuel management.


Some onsite fuel providers use wireless systems to record fuel data – the amount and type of fuel pumped, the vehicle that received it, and the time and date. This data is then made available online where you can see your entire fleet or each unit's fuel consumption by date or fuel type. One system, Fuel Management Online, actually lets users track docket data, price history, and years of fuel data at no charge. With this data, you can compare fuel consumption from unit to unit and make some decisions.

Next is technology that can assist you in gathering and delivering key information about your fleet's fuel consumption and operating data. The latest Advanced Mobile Asset Management Technology can record all refueling information and then deliver it, via email, to your desktop. A wireless data capture chip is attached to each piece of equipment for positive identification. Fuel and engine performance information is recorded giving you the data you need for effective fuel management. Even more valuable is

software that can help you analyze key operating information such as excessive idling, speeding, aggressive acceleration, and improper equipment maintenance. Inefficient driving habits waste the most fuel, but with this information in hand, you can cut costs. Once you have this data, you set thresholds for each category and compare each unit's performance. Now you can manage driving habits to deliver the best possible fuel efficiency.

We can't control the cost of fuel, but we can control how much we consume. When you measure and manage your fuel expenses, you can manage a realistic return on your investment for fuel. When the fuel economy of each vehicle improves month over month by managing exceptions to your set thresholds, and because you are able to record odometer readings, transaction volumes, and related fuel costs, you can calculate the actual return on investment for every liter of fuel you buy.

In a case study completed by Natural Resources Canada, differences of up to 12 liters per 100 kilometers were identified between a company's most and least fuel-efficient drivers. In fact, poor driving habits can consume up to 35% more fuel. Using technology can help you measure and manage fuel consumption, and it will save you thousands and thousands of dollars. You do the math...it adds up!

 For more information: Jack Lee can be reached at (604) 513-0386 or by e-mail: askthefuelexpert@4refuel.com.