TRIBOLOGIK®

NEWSLETTER

ISO 17025:2005 **www.tribologik.com**

SEPTEMBER 2013

In this issue :

Why Test Fuel?

Water in gasoline or diesel can choke your engine by slowing it down. Water does not burn, is not flammable nor combustible. Yet a non combustible liquid in a combustion engine is a ticket for engine failure., due to the fact that water is a source of corrosion which can damage pumps, injectors and hoses.

Fuel coming out from the refinery is usually clean. However, you never fill up at the refinery. From the refinery, fuel is transferred to tanker wagons or trucks, siphoned from tank to tank using more or less clean hoses, ultimately mixed involuntarily with oil leftovers at the bottom of the tank. Contaminants take advantage of these intermediate operations and make their way into your fuel combustion system. Damaged gaskets, seals and caps are also wide open doors to contamination.

Being the end user, you must assume that each time you fill up, you can be exposed in the fill up with contaminated fuel.

Preventing these contaminants from reaching the fuel combustion system is what filters are meant for. At the end of the day though, after capturing all these contaminants, the filter will eventually block , restrict the fuel flow and reduce the performance of the engine.

This is why filters must be cleaned and/changed on a regular basis. Anytime your filter delivers less than its expected life, you should investigate: it may not be the right type of filter or its quality is not up to expectations.

Contaminants

It is the responsibility of the user to make sure that he uses clean fuel. If such is not the case and the engine fails or gets damaged, the manufacturer's warranty may not apply.

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The most common fuel contaminants are:

Water: Water is the most frequent of all contaminants. Water may be introduced into the fuel supply during fueling when warm, moisture laden air condenses on the cold metal walls of fuel storage tanks. Keep your tanks as full as possible. If not, warm weather will cause condensation whereas ice and wax crystals wax will form as a result of cold temperature, plug the filter and stop the vehicle. Water can damage injector components and reduce thelubricity of the fuel, which can cause seizure of close tolerance components such as those found in modern high pressure injection systems.

Fongus and bacteria : These micro-organisms live in water. Bacteria multiply and grow incrementally, feeding on the degradation of oxygen, hydrogen and hydrocarbons. They deplete the energetic attributes of fuel and generate a number of degradation products including hydrogen sulfide (sulfuric acid which is likely to provoke seizure, block injectors and consequently plug the filter). Draining the system will not eliminate microbes. The only way to get rid of them is to clean the system with a biocide.

Sediments and other solids – These contaminants often make their way to your fuel tank when filling up. Most sediment can be removed by settling or filtration. Other contaminants like wax and alspahltene particles, can also plug the filter, decrease performance, cause failures and damage your engines.

For all these reasons, it is very important to purchase high quality fuel from reputable suppliers and test it upon each delivery. In the next issue, we will list the proper fuel tests to perform and explain why.

For more information, contact your account manager.

WEBINAR – Manage your Oil Analysis Program using the Tribologik® web site

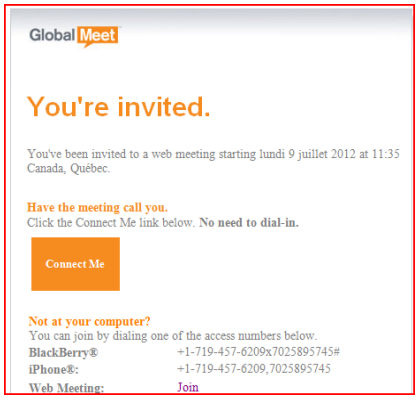
By **Jeremie Verdene**

Date : Friday September 27, 2013
Time :

- **Ontario, Manitoba : 12:00 PM, Toronto time**
- **Saskatchewan, Alberta : 10:00 AM, Calgary time**

Duration : 30 minutes

Reserve now with Jeremie : jeremie@tribologik.com



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