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Are you wasting money on oil analysis?

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In the last edition of MEETA ´s Newsletter, the article “Good Lubrication Management provides inside view of machines”, gave you some information about why oil analysis are very important, and what could cause harm to your machine.

As it so rightly was written an oil analysis can tell you a lot about your machine. Some even compare oil with blood in the human body. It can tell if you are sick or not.

But do you know how to read the oil analysis report?

Are you reacting on it, solving the cause of the oil problem, or are you just changing the oil, which is really not a solution?

A lot of oils are being changed because the lab report says so. The recommendation is usually due to change in viscosity, acidity (TAN), high level of dirt, water, oxidation/varnish or ppm of metal particles.

Quite often the oil you change is in chemical good condition, and could therefore have lasted much longer. The properties are still intact, but maybe it is too dirty, the water level is too high, or the oxidation/varnish level is increasing.

All of these contaminants can actually be removed from the perfectly good oil. It is very important to note, that when you drain an oil tank, a lot of dirt is still in the tank and the system, because oil degradation products (varnish) act as glue on all internal surfaces. When you refill with new oil, which however isn't clean at all, you dissolve the dirt and varnish and will end up with dirty oil in a very short time.

If you do spend 5 minutes on reading the oil analysis report, you will see what the problem is. So instead of just replacing the oil, and thereby killing the messenger boy, you might be able to solve the problem without having to stop the machine and your production.

And most importantly, find out what the reason for the contamination is, and solve it, so it will not cause similar problems in the future

If the problem is moisture from the surroundings, then you need a good desiccant breather on the oil tank. Wear on machine components - go for a good filter to reduce the particle numbers. Or water from leaking seals or coolers - find a good filter separator (purifier).

Most failures on machines are due to contaminated oil causing wear & tear on valves, pumps, gears, cylinders etc. Contaminants will always be present in oil, but proper predictive maintenance can reduce them to a minimum.

Machines are quite often operating in dirty environments, which will result in damage to components, if the contaminants are not kept out and removed from the oil.

Reducing contaminants from the oil is most effectively done by offline depth filtration.

Offline depth filters cannot be compared with your typical inline pressure filter chart, since their purposes are different. A good offline depth filter is designed to remove both particles,



water and oil degradation products (oxidation/varnish) from the oil system in the cheapest possible way.

Since offline filters are not interfered by the operating oil system, these filters can work under optimum conditions with constant flow and pressure and without disturbing fluctuations, which are so lethal to effective filtration. Numerous Return On Investment calculations show that a well designed offline depth filter will outperform even the best of inline pressure filters and will ensure excellent lubrication and low machine operation cost many years to come.

In most systems you would want to have oil app. 2 – 4 times cleaner than new oil, typically a cleanliness called ISO Code 16/14/11 (NAS 7) or better, which will both prolong the oil life and reduce the costs for maintenance, unscheduled downtime and lost production. To learn more contact your local supplier of CJC offline filters today. See www.cjc.dk.

Please see attached pictures:

Drained oil tank without offline filtration



Offline filter principle

