

4 March 2015
Press Release

Regular top ups can control foaming

Regular topping up of hydraulic oil can reduce levels of foaming, according to Techenomics International. Foaming can lead to excessive oxidation and cavitation which reduce the lubricating properties of oil and may result in gearbox problems and hydraulic system failure.

Recent testing by Techenomics reveals that regular top ups can minimize the damage caused by foaming. The testing aimed to show how to control foaming and to ascertain if aggressive filtration affected foaming tendencies. Foam is a collection of small bubbles of air that accumulate on or near the surface of the fluid.



Eka Karmila

Foam serves as a thermal insulator which makes it difficult to control the temperature of the oil. There are many factors that can cause foaming but the most common include water contamination, solids contamination, mechanical issues causing excessive aeration of the fluid, cross contamination of the fluid with the wrong lubricant, contamination of the fluid with grease and too much anti-foam additive, either by incorrect formulation or by incorrect reconstruction of the additive package.

Techenomics CEO Chris Adsett said many companies had problems with foaming in hydraulic oil and consequently regularly filtered their hydraulic oil in a bid to extend lubricant life. "After discovering a lot of their clients were doing this, Techenomics Indonesia decided to carry out tests to show how to control foaming and to demonstrate the impact of topping up with extra oil when the existing oil is out of spec. "Six clients took part in the testing - Hexindo, Pama, Thies, SIS, Madhani and Liebherr. Results show that a 20% top up can reduce the foaming tendency by up to 87.5% (normal limit)."

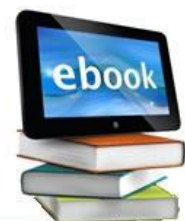
The testing is ongoing and future analysis of results and subsequent research will be grouped according to unit; oil type; oil hours; and normal operation condition. This grouping is carried out in order to classify the top up.

To date the results vary, which is most likely caused by:

- Different units of large capacity and small capacity, which affect the load
- Type of oil -the additive composition of various brands is very influential on the oil resistance
- Oil hours -long-term and short-term uses have different impacts on the performance of existing additive in oil
- Abnormal operation conditions, over-heating, over-load, seal leaks and others

Chris Adsett said, "Overall, testing shows that levels of foaming in lubricants can be controlled by regular top ups. This minimises the volume of oil consumption as complete oil changes can be reduced. It also ultimately reduces the cost of operations as equipment availability is improved." "The work showed that even with aggressive filtration, top ups can balance foaming tendencies.

Due to the wide variance of results it is recommended that testing, especially if secondary filtration is being used, be carried out routinely," he added.



Receive a free e-book of
all our technical blogs
CLICK HERE

For further information please e-mail Eka Kamila: eka@techenomics.com

For media enquiries please contact Brooke Tolar, DragonFly Public Relations on
T: 0411 553 246 or E-mail: brooke@dragonflypr.com.au