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Press Release

## Are magnetic plugs your only weapon?

### ***Effective maintenance programs have multiple components***

Magnetic plugs perform an important role in collecting metals from oil and helping ensure engines and components run smoothly but they should form part of a predictive maintenance program and not be used in isolation, according to fluid management and condition monitoring experts Techenomics International.

“It can be counter-productive just to rely on magnetic plugs for maintenance of engines and hydraulic equipment,” says Techenomics CEO Chris Adsett. “The plugs, and particularly rare earth magnetic plugs, do a great job in collecting deleterious metal elements in oils and fluids but do not get to the root cause of the problem.



Chris Adsett, CEO of  
Techenomics International

“Plugs must be checked regularly but to gain maximum benefit the material collected on the plugs must be analysed and this should be done in conjunction with a regular, professionally executed oil analysis program.



Dirty / damaged plugs



Clean magnetic plugs

“These measures will better enable equipment operators to get to the source of the metals in oil and fluids and to, therefore, carry out effective predictive maintenance programs. These programs are able to indicate maintenance issues before they result in poorly performing engines or equipment, or even failure, which can mean costly repairs and downtime, thereby curtailing production and impacting the bottom line.”



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A build-up of sludge and dirt on plugs is not uncommon and this is not always indicative of problems, but regular inspection and analysis can indicate if there are deleterious metals present or if the sludge is going to lead to equipment issues.

Sludge build-up can occur when operators just top up oil levels without flushing the component before refilling with new oil. Residue builds up at the bottom of the component and mixes back in the fresh oil,



resulting in fine metal getting into places where it continually scratches the surfaces of components, wearing them down and causing other problems such as loss of tension or grip due to pits being created on surfaces.

“Some may think this a minor problem and write it off as wear and tear on components but these small problems can escalate and lead to major failures,” Chris Adsett says.

Oil and fluid analysis should be treated in the same way that doctors use blood tests, he says. “Blood is collected and then diagnosed, or analysed, to ascertain what is wrong with the patient, and then the treatment is based on this diagnosis. Analysis of oil and the material collected from it enables provision of a diagnosis to treat the issue.”

Techenomics is an independent fluid management specialist with a network of accredited laboratories equipped with state-of-the-art testing and analysis equipment, and staffed by fully trained experts. Techenomics provides a complete package that incorporates magnetic plug analysis as well as other accurate and thorough predictive maintenance services applying to oil and fluids.

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