Press Release

Grease analysis to boost excavator productivity

Techenomics to cooperate with TFP Engineering
A new cooperation arrangement between Techenomics and TFP Engineering will ensure that excavator operators achieve greater productivity from their equipment. The arrangement involves Techenomics providing analysis of grease from the ring gears and slew bearings of excavators serviced by TFP.

TFP utilises its innovative Pakka Jacks technology to lift and support the heavy upper chassis and components of excavators, providing access to the ring gear and enabling the slew bearings to be serviced. The ring gear can be serviced in situ or removed and serviced away from the excavator. Techenomics’ expert grease analysis will support the deflection testing carried out by TFP, which indicates the amount of component wear. The tolerance of the deflection has a limit and when that is reached, the gear needs refurbishment.

Techenomics’ CEO Chris Adsett says deflection testing coupled with grease sampling, analysis and trending will provide a visual outlook of the rate and type of wear and a clear indication of life expectancy against an international base line.
“Over a period of time we will trend the data to see how various greases are performing and provide feedback in terms of the effectiveness of the grease, the need for grease replacement and the best type of grease to use.”

TFP Engineering general manager Tony Poke says TFP has developed a monitoring system (SADI – Slew bearing Active Data Interface) for slew bearings that measures wear and allows the prediction of the ‘end of life’ to reduce bearing failures. “TFP has changed out over 160 slew bearings on machines greater than 200 tonnes and has identified the effective life of slew bearings and the modes of failure.

“Cooperation with Techenomics will allow broadening of slew bearing testing methods to provide a safe and higher level condition monitoring system.” TFP aims to work with Techenomics on an international level, where suitable.

Chris Adsett says the arrangement is a win-win for both companies. “There are many excavators used in mining operations throughout our markets, particularly in Indonesian coal operations, and the cooperation will give TFP opportunities to access new markets. He says it will potentially benefit Techenomics on three levels:

- It potentially increases our business to customers operating excavators, which is basically everyone in the mining industry;
- It allows us to work with TFP’s customers who are not in our market where we can look at providing our traditional, core business areas such as oil analysis; and
- The arrangement will provide a more complete total package which gives us an opportunity to introduce our core business services to the mining industry outside our current market.

TFP is an Australian company that has extensive experience in the project management of scheduled services for mining equipment, draglines, face shovels and earthmoving equipment. TFP conceived and developed the Pakka Jacks system to create a competitive advantage for maintenance work, and this has evolved into a standalone enterprise.

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