

# Power Utility Doubles Oil Service Interval

*Spinner II® Centrifuge Makes it Possible*



## Scenario

The majority of electricity in the U.S. is derived from coal-fired steam-powered turbine generators that require thousands of tons of coal every hour. One south Texas plant operates three five-megawatt turbines and consumes 33,000 tons of coal transported by over 300 train cars each day.

Moving this mountain of carbon from train car to firebox requires a large stockpile, which is pushed toward conveyers using a pair of highspocket track-type tractors powered with Caterpillar 3412 diesels.



## Solution

The plant transportation manager has an ongoing program to identify technology that can enhance his operating efficiency. In discussions, he identified the Spinner II oil cleaning centrifuge as a candidate for providing longer time between engine overhaul and increased lube oil durability.

The manager had a good database from an SOS analysis program used to assess engine health and lube oil strength, so he was confident that the effect of applying the centrifuge on the Caterpillar 3412 would be evident through comparison with the baseline data.

The maintenance staff changes engine oil every 250 hours, as recommended by Caterpillar as best for severe conditions. Installing a Model 200 HD centrifuge with Level Control Base onto the tractor's engine, using the turbocharger boost as a vent air supply, the manager maintained routine oil sampling and analysis. After a few service intervals at 500 hours without tripping over any of the critical oil performance limits, he decided to install the centrifuge on all coal-handling vehicles.



## Results

The plant transportation manager found that the centrifuge bowl would typically have a dirt cake of 1/8 to 1/4 in. every 500 hours. On one occasion, the same interval produced 5/8 in. of heavy debris. The service staff searched for some type of combustion failure and discovered that one cylinder had a fractured ring.

By separating harmful wear debris from lube oil, the Spinner II oil cleaning centrifuge extends engine component life and oil service intervals, saving operating dollars. As a diagnostic tool, catastrophic failures can be avoided by monitoring the dirt load.

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Helpful Sales Tools for Representatives of Spinner II Products

**SPINNER II®** Oil-Cleaning Centrifuges