Booth Energy Extends Engine Life in Mining Machinery

Spinner II® Centrifuges Deliver Dramatic Operating Cost Savings

Profit Builder No. 413

Helpful Sales Tools for Representatives of Spinner II Products

Scenario

Booth Energy Group is a surface mining operation in Kentucky and West Virginia. Eight years ago, Maintenance Coordinator Chris Goble spearheaded an investigation looking for ways to extend the life of the company's heavy-duty engines. That effort eventually focused on oil cleanliness, leading Chris to an evaluation of leading bypass filtration technologies.

"We made sure to involve all key players, including our oil supplier, engine OEM and Whayne Supply, our local Caterpillar dealer," said Goble. "We considered everything–filtration effectiveness, capacity, ease of service and long-term costs. Some options gave us good filtration, but required expensive disposable elements and large volumes of make-up oil. It soon became clear that the most promising and affordable answer for the long term was the Spinner II centrifuge."

Spinner II centrifuges have no elements to replace. Instead, they have a high-capacity, cleanable bowl that stores contaminants during operation. To service, the bowl is simply emptied and re-used. For Booth Energy, however, oil-cleaning performance was the key factor in the decision. "With the ability to remove particles smaller than a micron, we felt the Spinner II centrifuge was the best option for controlling soot and protecting our engines."

Chris Goble, Maintenance Coordinator, Booth Energy Group

Solution

Following a successful test period, Booth Energy Group began to install Spinner II centrifuges fleet-wide and started using high-quality synthetic oil. Today, the growing list of centrifuge-equipped machinery includes more than 40 loaders, dozers, graders, excavators, haul trucks and gen sets.

Results

The company has seen dramatic improvements in oil cleanliness and engine protection. Drain intervals for off-road equipment have increased to 1,000 and 1,500 hours. "Our CAT 988 and 992G series wheel loaders have gone from 250-hour service intervals to 1,000 hours," said Goble. "We've eliminated three oil changes per year and that alone is enough to cost-justify our investment."

"Our CAT 773 and 777D truck engines are running trouble-free for 43,000 hours," continued Goble. "That's about 70% more than the average service life of those engines. We're getting 28,000 hours from Cummins gen set engines normally rated at 14,000 hours. Our D11 dozers have also doubled engine life. We don't yet know the limit in this application because they're still running."

"People from all over the country have called to ask how we do it."

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SPINNER II® Oil-Cleaning Centrifuges