Allied™ RELIABILITY
SPINNER II® CENTRIFUGES

CASE STUDY

DRILLING CONTRACTOR EXTENDS OIL LIFE ON GEN SETS – Spinner II® Centrifuge Achieves 75% Increase

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DRILLING CONTRACTOR EXTENDS OIL LIFE ON GEN SETS

SCENARIO

A world-class oil and gas drilling contractor generates power for its rigs using diesel gensets equipped with Caterpillar 3500 and 3600 series engines. Land rigs typically operate with three engines and offshore rigs with up to seven engines.

While performing a study of specially-formulated lube oil, the contractor's lubricants technical manager observed that specific groups of engines in the fleet exhibited significantly longer oil life (measured by TBN depletion). Further investigation revealed that all of these engines had been equipped with Spinner II oil-cleaning centrifuges. To assess the potential value of introducing the centrifuge fleet-wide, the manager needed a controlled analysis of centrifuge performance.

SOLUTION

The lubricants technical manager directed a test on one of the contractor's offshore rigs, comparing standard lube oil practice with the use of the specially-formulated oil and a Spinner II model 3600 centrifuge. The equipment setup was representative of offshore rigs throughout the fleet:

Engine Rate Speed:	**1,800 rpm**
Power Output:	**60 Hz, 1,230 kW**
Crankcase and Accessory Capacity:	**84 gal**
Lube Pump Flow:	**190 gpm**
Centrifuge Flow Rate:	**12 gpm**
Centrifuge Dirt-Holding Capacity:	**6,000 cc**
Turn Rate*:	**8.6**

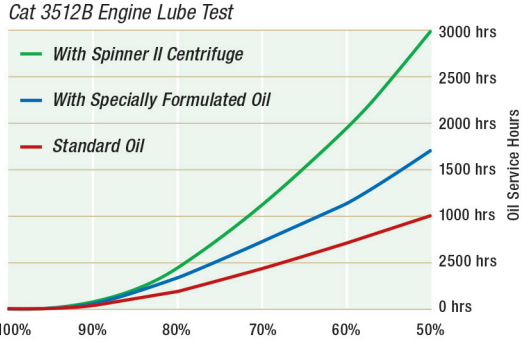
*Number of times the total lube volume is processed through the centrifuge in one hour



RESULTS

The test confirmed that specially formulated oil alone extended oil life by 70% (1,000 hrs to 1,700 hrs) compared to the original fleet-standard oil. The use of the Spinner II model 3600 centrifuge increased oil service by an additional 75% (1,700 hrs to 3,000 hrs).

With assistance from Spinner II authorized distributor Devon Industries, the contractor calculated a cost savings of $87,460 (savings to first overhaul) from using Spinner II centrifuges in a three-engine genset configuration. Savings accrue from reduced oil, filter and labor costs, as well as from extended service time before overhaul resulting from improved wear protection.



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