## 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

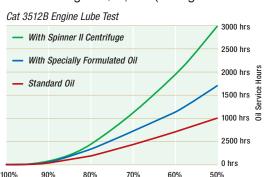


## **Results**

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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<sup>\*</sup> Number of times the total lube volume is processed through the centrifuge in one hour