

# Extending Service for Large Engine-Driven Pumps

**Spinner II® Centrifuges Save More Than Oil and Filters**



## Scenario

A maintenance supervisor was investigating ways to reduce routine service and operating costs for a series of large water pumping stations. Of prime interest were the large, diesel engines driving a number of pumps. There were almost 70 engines, ranging from 5 to 12 cylinders.

The supervisor knew that Spinner II centrifuges had been used successfully for many years in marine diesels, as well as in a wide variety of other heavy-duty engine applications. With the potential for significant savings through extended service intervals and improved engine protection, he arranged a test using a Spinner II Model 200 HD centrifuge on one of the engines.



*Engine with Spinner II centrifuge on test stand.*

## Solution

The test was conducted on an 800 hp engine. A lube oil sample was taken prior to testing. The Spinner II centrifuge was installed on the main engine sump, which has a capacity of 200 gallons. The centrifuge operated for 958 hours before being removed for visual inspection. At that time, a second lube oil sample was taken.



*Centrifuge bowl containing 2.4 pounds of contaminants removed from the oil during the test period.*

## Results

The centrifuge removed 2.4 pounds of material – mostly carbon soot – from the lube oil. Oil analysis revealed significant reductions in iron, magnesium, calcium and zinc.

The maintenance supervisor recommended installing Spinner II centrifuges on additional engines, with plans to subsequently add Spinner centrifuges on all of the diesel engines.

Conservatively estimating a reduction of one oil change and one PM per engine, the supervisor will save over \$16,000 per year on just three of the larger engines. In addition to extending oil service intervals and PM, the maintenance supervisor projects savings in the following areas:

- Reduced wear extends machine life and delays future purchases
- Increased time between overhauls
- Extended service intervals reduces workload for diesel engine technicians, which frees man-hours for other jobs. Work now contracted out can be performed by in-house personnel at lower cost.
- Decreased carbon accumulation on exhaust boxes reduces cleaning time

**Table 1 Annual Savings**

Based on Eliminating One Oil Change and One PM per Engine on Three Engines

Oil Change	
Sump Capacity	200 gal
Oil Cost*	\$1250.00 per oil change
Labor	\$128 (2 workers, 4 hours ea)
<b>Periodic Maintenance</b>	<b>1,500 hour PM \$3,975.00</b>
<b>Total Oil Change/PM Savings for 3 Engines</b>	<b>\$16,059</b>

\*Based on \$6.25 gal

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**SPINNER II®** Oil-Cleaning Centrifuges