



CLEAN OIL  
BRIGHT IDEAS

## CJC™ Application Study

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### CUSTOMER

GulfMark Offshore is a Houston based shipping company, with branch office in Sandnes, Norway. They operate a fleet of Platform Supply Vessels (PSV) and Anchor Handling Vessels (AHTS), primarily in the North Sea. One of their ships, "North Vanguard", has its base in Esbjerg, Denmark, servicing the oil and gas platforms.

### THE SYSTEM

The ship has two Rolls-Royce Bergen main engines type BRM-6, each with an output of 3,300 bhp running on diesel distillate. Each sump is holding 800 litres of Mobilgard 312 diesel engine oil.

### THE PROBLEM

Originally, the ship had one centrifugal separator to be shared between the two main engines. It was working on each engine, cleaning the oil one week at the time. Obviously the lube oil analysis reports were not good enough.

### THE SOLUTION

In 2005 it was decided to install a CJC™ Fine Filter HDU 427/108 P with a CJC™ Filter Insert A and a 8.8 kW preheater on starboard engine, and subsequently let the separator work on port side engine only. This gave us a good opportunity to monitor both engines with regards to sludge and particulate deposits inside.

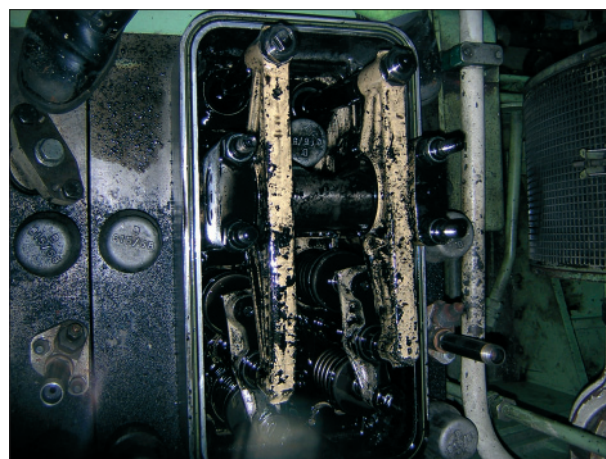
### THE RESULT

The results were remarkable. After a few months of operation, the engine with the CJC™ Filter turned out to be much cleaner inside compared to the one with the separator.

### THE BENEFITS

A centrifugal separator must have a preheater to heat up the oil to a temperature of app. 80°C which is extremely power consuming. Another disadvantage is that separators of the self-cleaning type discharge some oil along with the sludge. This requires often top-up with oil.

A CJC™ Fine Filter, however, does not need heating, unless it is needed prior to engine start-up. It means that a filter is far less power consuming than a centrifugal separator. Also, the engine's oil consumption is reduced, because no oil is lost between insert changes.



Cylinder Cover, before filtration.



Cylinder Cover, after filtration.

### COMMENTS

**Chief Engineer Steinar Jensen:**

*"It all looks promising. If we can run the filter inserts for one year, the running costs will be considerably lower as running the centrifugal separator. I also want to state that the number of maintenance hours will be reduced. I believe the photos speak for themselves....."*