



CJC™ Application Study

Application Study written by:

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CUSTOMER

Vessel: "MV Eidsvaag Vega"
Feed vessel for the fish farming industry
(fish feed transport, salmon fish feed)

Shipping company: Eidsvaag AS

SYSTEM

Oil: Lube Oil System
Engine: MAK 8M20, 1520 kW, 4-stroke
Type of oil: Marway 1040
Oil volume: 900-1,000 litres

PROBLEMS

The engine oil was contaminated with a high content of soot, oxidation and particles. The existing Lube Oil Centrifuge was not able to achieve the required level of oil cleanliness. In addition, the centrifuge was time-consuming and expensive to operate, with high service costs and high oil consumption. The Chief Engineer tended to use approximately 200 working hours a year on the centrifuge. Half of these working hours were spent in an environment with degassing and diesel fumes from a washing bath in connection with the cleaning of centrifuge components.

SOLUTION

The centrifuge was replaced with a CJC™ Oil Filter, HDU 27/108 P consisting of 4 CJC™ A 27/27 Filter Inserts with a total dirt holding capacity of 32 kg in this case. The engine was overhauled and oil replaced with new at the workshop at the same time. The filter inserts were changed after about 5 months of operation and the oil at the time was still brown and not black. By replacing the centrifuge with the CJC™ Oil Filter, the Chief Engineer was able to save 190 working hours a year that they can use for other tasks.

TECHNICAL BENEFITS

The operational reliability for the CJC™ Oil Filter is very high. The CJC™ Oil Filter only has a pump and motor as moving parts. In comparison, the 10-year-old centrifuge with two attached pumps had its mechanical weak points. In continuous operation, the moving parts of the centrifuge operated many hours. When components broke, the centrifuge was very time-consuming. After installing the CJC™ Oil Filter, they saved major expenses for components avoiding the hassle and annoyance of repairs.

FINANCIAL BENEFITS

The CJC™ HDU 27/108 P contains four CJC™ Filter Inserts A 27/27 that are changed about three times a year. This involves a filter cost of about EUR 780 a year. In comparison, the operating costs for the centrifuge amounted to about EUR 3,640 - 4,158 a year. Working hours for operation and maintenance are not included. While the Chief Engineer previously used approx. 200 working hours on operation and maintenance of the centrifuge, today they use less than 10 working hours a year on the CJC™ Oil Filter. This is a 95% reduction.

ENVIRONMENTAL BENEFITS

Eidsvaag AS is a shipping company with a very clear environmental profile and has a really active environmental commitment among employees.

It is the first shipping company that has been environmentally certified by the Eco-Lighthouse Foundation. Among other things, this means that they report their consumption of oil and fuel. As the shipping company has decided to replace the lubricating oil centrifuge with a CJC™ Oil Filter, this resulted in a significant environmental benefit in terms of reduced oil consumption and less sludge.



Based on these positive environmental effects, the shipping company has decided that they should also replace the diesel centrifuge. A CJC™ Filter Separator PTU1 27/54 P for cleaning the diesel was installed one year later during the annual workshop shutdown.

WORKING ENVIRONMENT

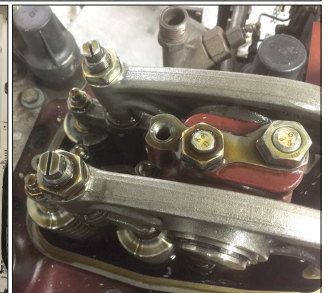
The centrifuge must be cleaned manually every four days. This process took about two hours, and half of the time was spent washing the centrifuge bowls in a diesel bath. After installation of the CJC™ Oil Filter, the Chief Engineer do not have to perform manual cleaning, and avoid degassing and diesel fumes from wash tubs with centrifuge components. All in all, the conversions from a centrifuge to a CJC™ Oil Filter fall into line with the shipping company's Health, Environment and Security System (HES system) and environmental profile.



"MV Eidsvaag Vega",
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Mr. Morten Krognæs,
Chief Engineer
"MV Eidsvaag Vega"
for CJC™ Oil Filter,
HDU 27/108 P



MAK 8M20 Engine, 1,520 kW

FINANCIAL BENEFITS

SAVINGS between centrifuge and CJC™ Oil Filter	
Cost, operation: - Centrifuge - CJC™ Oil Filter	EUR 3,640 - 4,158 per year EUR 780 per year
Total savings, operation:	EUR 2,860 - 3,378 per year
Cost, working hours: - Centrifuge - CJC™ Oil Filter	200 hours a year 10 hours a year
Total savings, working hours:	190 hours a year
	= 95% savings per year

COMMENTS FROM CUSTOMER

Mr. Morten Krognæs, Chief Engineer "MV Eidsvaag Vega"
"Our operating experience up to filter insert replacement is very good! We weighed one of the inserts and its weight showed 12.3 kg! The oil in the engine is still brown and not black! - This CJC™ Oil Filter is really good :)"