



Hydraulic Oil, Winch

Tug boat

Customer Case

CUSTOMER SAVINGS & BENEFITS

Installing a CJC® Hydraulic filter the following benefits were obtained:

- Risk losing charter reduced (coming off-hire)
- reliable functional winch due to consistently clean hydraulic system — pumps, valves and pistons optimally protected
- 10-times longer lifetime for the hydraulic components possible
- Oil change avoided, and 1,200 Litres of hydraulic oil saved
- CO₂ emissions reduced – 5,760 kg CO₂ are saved per avoided oil change *)



*) Bei der Verbrennung von Altöl entstehen ca. 4,8 kg CO₂ pro 1 Liter.

CUSTOMER

Vessel: Tug boat „BEAUFORT“, 2010 built by Damen shipyard in the Netherlands

Vessel owner: Dublin Port Company, Ireland

SYSTEM

Hydraulic: Winch

Hydraulic oil: Shell Tellus 46

Oil volume: 1,200 Litres

CHALLENGE

The hydraulic system was running under extremely hot conditions and consequently, problems had followed. To value the oil more precisely, an oil sample was taken and analysed by an independent laboratory. Result of the analyses: high varnish and particle content; the oil was so dirty that the exact number of particles was not countable; black filter test membrane. The hydraulic system was extremely dirty.

At that point, the Dublin Port Company had already installed a CJC® Hydraulic Filter 27/108 in the offline flow on their RoRo Ferry ram hydraulic system. Because of the excellent results on the ferry, the ship owner decided to test such a CJC® filter for the tug boat's winch hydraulic system.

SOLUTION

A CJC® Hydraulic filter 27/27 was installed in the offline circuit for continuous fine and depth filtration, drying and care of the oil.

Filtration degree: 3 µm absolute, retention rate < 1 µm

Dirt holding capacity: up to 10 kg

Water holding capacity: approx. 0.9 Litres

Filter material: 100 % natural fibres

RESULT

First sample was taken on 12. December, which revealed that the oil was extremely dirty; the ISO code was estimated to be approx. 22/20/14, not Countable. The CJC® Oil Filter was installed shortly after the report and the second oil sample showed that the ISO Code dropped to 15/14/11 already after only one single pass of filtration. After 4 months of running with the CJC® Oil Filter, the ISO was reduced to 13/12/7, (99% particle reduction) - perfect conditions for optimum system reliability. No problems were seen on the winch anymore.



Mr. MOSS, Technical Supervisor, Dublin Port Company:

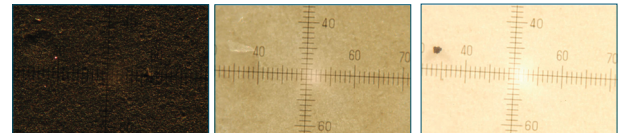
„I would highly recommend talking to CJC! Especially if you are experiencing any oil condition problems, this system works!“



Tug boat „BEAUFORT“

CJC® Hydraulic Filter 27/27 installed at the hydraulic winch system of the tug boat.

ÖLPROBEN



BEFORE
without oil care

With CJC® – after
1st filter pass

With CJC® – after
4 months

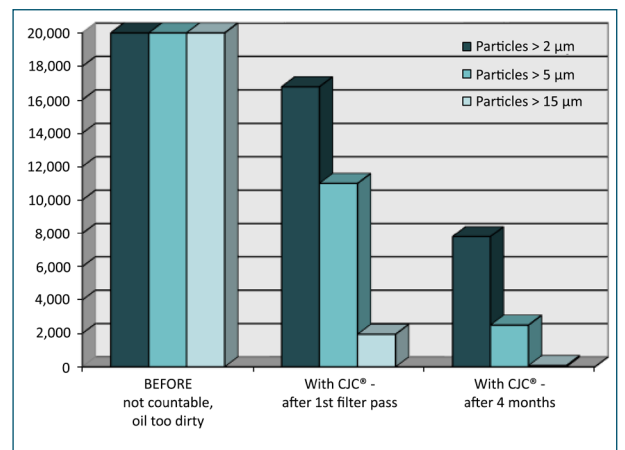
Development particle content

	VORHER	With CJC® – after 1st filter pass	With CJC® – after 4 months oil care
ISO Code 4407 *	22/20/14	15/14/11	13/12/7
Particles > 2 µm		16,780	7,804
Particles > 5 µm	not countable	10,995	2,496
Particles >15 µm		1,950	77

Oil analyses by Filtrix Services, particle content in 100 ml

* Further information regarding cleanliness classes available on request.

PARTICLE CONTENT



CCMA7036-0-DE

Tug boat

Hydraulic

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