CLEAN OIL
BRIGHT IDEAS

Hydraulic Oil
Ferry - Water Jet, Steering System

CJC™ Application Study

Application Study written by:

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CUSTOMER

Vessel: M/F Hjørungavåg
Møre and Romsdals Fylkesbåter AS, Molde, Norway

THE SYSTEM

Hydraulic system for steering cylinders and for lubrication of the rotor of the water jet propulsion system of the fast ferry.

Volume: 80 litres of Mobil DTE 15 mineral oil. The steering cylinders are submerged and in risk of drawing water into the oil system. Hence the system is extremely exposed to contamination by sea water which can deteriorate lubrication, cause seizing and corrosion and lead to increased level of solid particles in the oil system.

THE SOLUTION

CJC™ Filter Separator PTU 15/25 PM with a 45 L/h pump for circulation of the oil in the tank. For filtration of the solid particles a cottonbased **Filter Insert BLA 15/25** (3μm abs.) is used. A stainless steel coalescer undertakes separation of the water.

The filter was installed to stabilize the water content on a level so low that the interval between oil changes and the overhauls of the water jets could be extended considerably.

The reason for installing of the filter was also to reduce the content of solid particles to a level which could ensure minimum wear on the lubricated parts.

THE RESULT

In order to check the effect of the filtration oil samples were sent to an independent laboratory COTAX, Larvik, Norway for analysis. See box for results.

M/F Hjørungavåg

CJC™ Filter Separator PTU 15/25 PM

THE RESULT

	Date	Water Content (ppm)	NAS
SB Water Jet	05.07.00	2,750	9
	08.07.00	650	8
	04.09.00	490	6
	13.09.00	680	2
	24.10.00	510	4
BB Water Jet	06.11.00	205	6

COMMENTS

The Chief Engineer of M/F Hjørungavåg:
"By filtering continuously we can, with the naked eye, see the oil getting cleaner. In effect, we can keep the oil so clean that we can run the system without risk. Before installing the CJC™ Filter we needed to replace both oil and seals at short intervals. The filter works perfectly."

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