

OIL FILTRATION SYSTEMS

#### MARINE

Application Study written by Lars Bo Andersen C.C. Jensen A/S (DK), in close collaboration with Lauritzen Reefers A/S

# CJC<sup>TM</sup> Application Study

## Hatch Cover Hydraulic on Lauritzen Reefers A/S

CUSTOMER Shipowner: Lauritzen Reefers A/S. Vessel: M/S Chilean Reefer. Contact person: Peter M. Petersen.

THE SYSTEM MacGregor Navire **hatch cover** hydraulic system with 1,100 litres of BP Batran HV15 **oil**.

#### THE PROBLEM

Due to particulate contamination and resin formation in the oil the hatch covers had to be opened manually (resin formation is the end product of oil oxidation).

The formation of resin will coat cylinders, pumps and other component surfaces. This can lead to operation difficulties and breakdowns.

THE SOLUTION  $CJC^{TM}$  Fine Filter HDU 15/25 PM with pump flow rate = 45 ltr./hour and containing one  $CJC^{TM}$  Fine Filter Insert type A 15/25 (3  $\mu$ m absolute) filter insert.

#### THE TEST

The filter was installed to run continuously for 24 hours a day in order to effectively retain both particles and resin. The resin is removed by absorption of the resin into the element.

#### THE RESULT

The operation of the hatch covers significantly improved within the first month after installing the filter. After a period of 3 months the problems had disappeared completely.

As can be seen from the enlarged membrane photos (right) the oil cleanliness has clearly improved: the resin formation in the oil has been removed or reduced significantly.



Before filtration



After filtration

### THE RESULTS

Particle size	<b>Before Filtration</b>	After filtration
>2 µm	69,264	15,007
>5 µm	27,485	4,418
>15 µm	4,385	427



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