



**CLEAN OIL**  
BRIGHT IDEAS

### CJC™ Application Study

**Application Study written by:**

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**In close collaboration with:**  
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2000

#### CUSTOMER

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

#### THE SYSTEM

Reduction gear type ULSTEIN 6000 AG-KP for main engine MAN B&W 9L 58/64.  
**Gear oil:** BP Energol GRXP 150

#### THE PROBLEM

The oil in the gearbox was contaminated with resin formations, making it impossible to carry out a proper particle count on the oil. The ISO code was estimated to 21/18 which is considerably above the required cleanliness level of ISO 18/15 as recommended by ULSTEIN.

#### THE SOLUTION

**CJC™ Fine Filter HDU 27/54 MZ** with pump flow rate = 590 L/h and **CJC™ Filter Insert 2 x B 27/27**, 3 µm (micron) absolute.

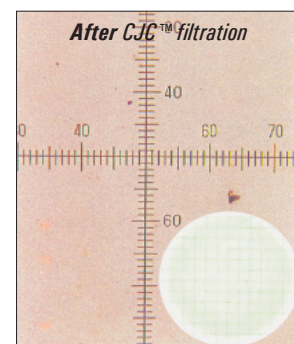
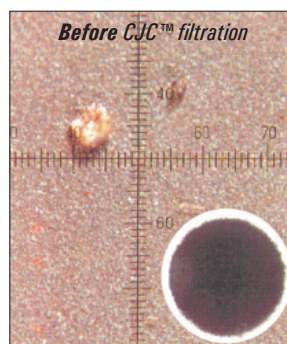
#### THE TEST

Oil samples were taken before the filter start up and after 27 days of filtration.

#### THE RESULT

As illustrated to the right, installing the CJC™ filter has resulted in a considerable contamination reduction. The ISO code was reduced from 21/18 to 13/10.

On a yearly basis with 7,600 running hours this reduces the amount of dirt passing the lubricating pump from 371 kilos to 45 kilos, increasing pump life by a factor 4.



#### THE RESULT

Particles	Before filtration	After filtration
> 5 µm	> 1,100,000	< 8,000
> 15 µm	> 130,000	< 1,000
ISO 4406 Code	21/18	13/10
Colour of membranes	Dark	White