

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

# CJC™ Application Study

## Reduction gear on Lauritzen Reefers A/S

### CUSTOMER

Shipowner: Lauritzen Reefers A/S.  
Vessel: M/S Chilean Reefer.  
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 ltr./hour  
and **CJC™ Filter Insert 2 x B 27/27**,  
3µm (micron) absolute.

### TESTING PERIOD

Oil samples were taken before the filter start up and 27 days of filtration. The results are illustrated to the right.

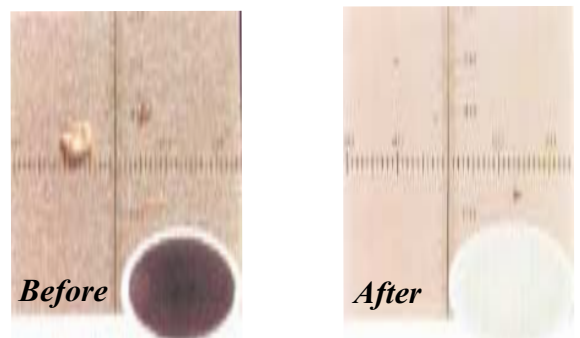
### THE RESULT

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.



CJC™ Fine Filter type HDU 27/54 MZ installed on the reduction gear of M/S Chilean Reefer.



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



# C.C. JENSEN

C.C.Jensen A/S \* Løvholmen 13 \* DK-5700 Svendborg \* Denmark  
Phone: +45 63 21 20 14 \* Fax: +45 62 22 46 15  
E-mail: filter@cjc.dk \* Web: www.cjc.dk