



CLEAN OIL  
BRIGHT IDEAS

# Hydraulic Oil Fishing Vessel, Hydraulic System

## CJC™ Application Study

Application Study  
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2001

### CUSTOMER

Vessel: F/V Sardis  
Shipowner: Jonsvein Knudsen,  
The Faroe Islands

### THE SYSTEM

Hydraulic system with 2000 litres Shell Tellus 46.

### THE PROBLEM

The shipowner experienced several breakdowns in the hydraulic system. An oil sample was taken and analysed by an independent laboratory.

The oil showed to be heavily contaminated with metal, sand, plastic particles, oxidation and water. The contamination level was 6 times higher than the acceptable level.

### THE SOLUTION

CJC™ Fine Filter HDU 27/27 P containing a CJC™ Filter Insert B 27/27 - 3 µm absolute dirt holding capacity in litres.

### THE RESULT

Samples were taken at time of installation, after 60 days and after 360 days.

The analysis showed that the CJC™ Fine Filter not only removed the particles from the oil but also the oxidation and water contamination.

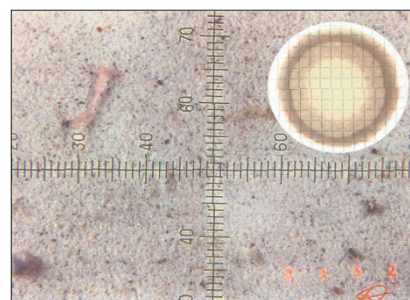
In the last sample the contamination level was reduced to ISO 12/11/6 and water content to 139 ppm. The first filter insert was changed after 160 days of operation.

The recommended contamination level is ISO 17/15/12. The results achieved with the CJC™ Fine Filter are better than the cleanliness levels recommended by Danish Technical Institute.

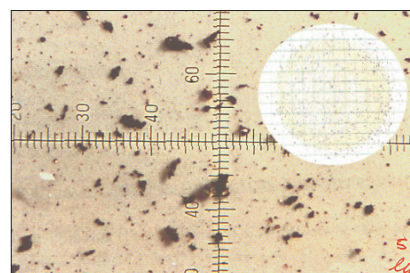
It is estimated that the lifetime of the hydraulic components as a direct consequence will be extended 10 times. The shipowner has also installed systems on the vessels F/V Topas, F/V Ametyst and F/V Smaragd.



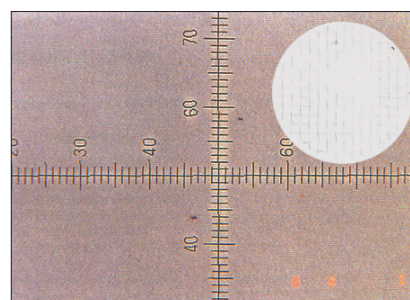
F/V Sardis



Test 1:  
January 2000 - Without filtration



Test 2:  
March 2000 - Filtration after 60 days



Test 3:  
March 2001 - Filtration after 360 days