



CLEAN OIL  
BRIGHT IDEAS

Application Study  
written by:

Jón A. Jónsson  
Framtak Marine  
Engineering  
Iceland

2005

## CJC™ Application Study

### CUSTOMER

Vinnslustöðin Vestmannaeyjum  
Stern Trawler: B/V "Jón Vidalin"

### SYSTEM

Winch system type Fukusama medium-pressure oil system, 3,000 litres hydraulic oil, viscosity 100.

### PROBLEM

The system was heavily contaminated with water and dirt. The oil was judged unfit for further use.

### SOLUTION

To solve the problem a **CJC™ Filter Separator PTU2 27/27 PV** with a flow of 90 litres was used, together with a **CJC™ Filter Insert BLAT 27/27**. To save money on the installation, waste heat from the ship's central heating system was used to heat up the oil. The filter suction was taken from the bottom of the system's coarse filter, and the oil was returned to the system through the pipe from the expansion tank which is positioned on top of the bridge.

### TEST

Three samples were taken: the first just after the installation, the next one month later, and the last one after seven months.

### RESULT

The status of the oil went from unfit for use to fit for use without any comments in just 30 days. Water contamination dropped from 539 ppm to 57 ppm. The amount of particles also dropped. Three CJC™ Filter Inserts were used to remove the particles. Earlier, changes of inserts took place once a year. The payback time of the unit was one day, as the cost of renewing the oil was higher than the price of the unit!

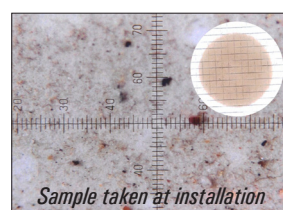
### COMMENTS

**Chief Engineer on B/V "Jón Vidalin" says:**  
"The CJC™ Filter Separator fulfils what was promised.

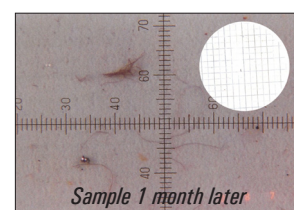
*I don't hesitate to recommend the use of it to clean a dirty system with water problems and to keep it clean."*



### OIL SAMPLES



Sample taken at installation



Sample 1 month later

### RESULT

|                    | 25.05.02  | 23.06.02 | 03.01.03 |
|--------------------|-----------|----------|----------|
| > 2 $\mu\text{m}$  | 1,254,327 | 54,680   | 43,641   |
| > 5 $\mu\text{m}$  | 357,861   | 44,367   | 22,789   |
| > 15 $\mu\text{m}$ | 84,656    | 20,086   | 2,193    |
| ISO Code           | 21/19/17  | 16/16/15 | 16/15/12 |
| Water, ppm         | 539.3     | 152.3    | 57.5     |

### PARTICLE REMOVAL

