



CLEAN OIL  
BRIGHT IDEAS

Application Study  
written by:

Willy Fossum  
Øvre-Johnsen AS  
Norway

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# Hydraulic Oil Car Carrier, Main System, Ramp

## CJC™ Application Study

### CUSTOMER

**Vessel:** MV "Kassel"  
**Shipowner:** Jan-Erik Dyvi A/S, Oslo  
**Contact person:**  
Superintendent Tom Lollok-Andersen

The company runs among other things a fleet of 5 car carriers, each carrying 4,300 cars.

### THE SYSTEM

Each ship has a main hydraulic system, holding 3,538 litres of Esso Univis N 46 hydraulic oil. The systems operate the doors, ramps and lifts onboard.

### THE PROBLEM

The oil in the tanks appeared quite dark coloured which obviously led to the conclusion that the oil was heavily oxidized and contaminated. These contaminants cause extraordinary wear of pumps and system components, and the risk of getting a breakdown or faulty components somewhere is great.

### THE SOLUTION

It was decided to have a **CJC™ Off-line Fine Filter** installed on each of the 5 ships, in order to improve on operational reliability and to cut costs.

The filter units installed were of the type **HDU 27/54 MZ** with a flow rate of 790 L/h and holding a **CJC™ Filter Insert B 2 x 27/27** with a dirt holding capacity of approximately 8 litres.

### THE RESULT

After some days of filtration it was possible to see a difference in the colour of the oil. On "Kassel" they mistakenly thought that they had lost oil, because it was no longer as visible in the sight glass as it was before. The oil had become more transparent and more like a new oil. Time will now show the more tangible proof of the efficiency of the installed off-line filters. Statistically the life time of both components and oil will be extended by 200 - 1000% when the particles, dirt and moisture are removed.

It means that focus is moved from repairs to preventive maintenance and overall operational reliability.



*MV "Kassel"*



*The stern ramp of MV "Kassel"*

#### The 5 car carriers:

- Dyvi Puebla
- Dyvi Pamplona
- Hannover
- Kassel
- Wolfsburg



*CJC™ Fine Filter HDU 27/54 MZ*