



Oil Filtration Systems
INDUSTRY

Application Study
written by:
Ivan Partono
C.C.Jensen A/S
Netherlands,

In co-operation with:

KLM Equipment Services
Engineer/Consultant Ground
Service Equipment
Mr. Rien Bakker



and

ChevronTexaco
Netherlands
Technical Support
Specialist
Mr. Cas de Lange

2004

ChevronTexaco



Hydraulic Oil Bulk Tank - Telemetric Readings

CJC™ Application Study

CUSTOMER

KLM Equipment Services.
Located at Schiphol Airport, Amsterdam.

THE APPLICATION

Hydraulic oil in a bulk storage tank with a gross volume of 3,000 litres. Three-way co-operation between the end-user, the oil company and filter manufacturer to obtain cost savings. ChevronTexaco has an ELC program that is implementing just-in-time deliveries according to the demand and/or usage of its customers. Telemetric readings of the stock level are a necessity to be able to respond correctly. Advanced logistic technology and knowledge hand-in-hand with accurate groundwork determine success and satisfaction of the customers.

THE PROBLEM

Sludge and high water content in the tank, due to years of congregation, resulted in the fact that the oil was not appropriate for this purpose. The main objective of the project was to obtain and maintain a high oil quality that would lead to cost savings in the long term. Filling the ground equipments with new clean oil is a good start and is bound for an optimal situation.

THE SOLUTION

CJC™ FineFilter LG 15/25 L with pressure sensor was connected to the ELC control box to monitor the pressure.

CJC™ FilterInsert BG 15/25 (3 micron absolute) with a contamination holding capacity of ½ litre of fluid and 2 litres of particles ensured clean oil in the bulk tank round the clock. When the filter insert is nearly saturated the system will signal telemetrically to the designated authorities. This provides a carefree solution as well as a clean oil guarantee.

THE RESULT

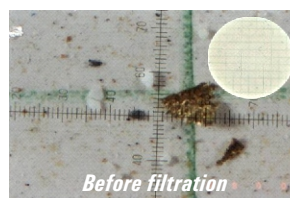
Starting with a high contamination level in the oil, within 2 weeks an oil sample showed a cleanliness level corresponding to an ISO code of 15/13/9. Intermediate sampling also showed that the condition of the oil has been improved irrespective of the batches and the volume of oil in the bulk tank. The stock level has been reliable and exceeds the demand and expectancy of the customer.



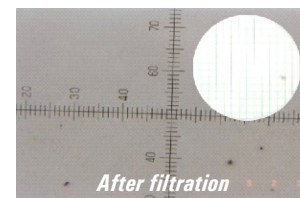
The KLM Bulk Tank



*CJC™ FineFilter
LG 15/25 L*



Before filtration



After filtration

THE RESULT

| Date | Days | Particle Count | | |
|-----------|------|----------------|---------|--------|
| | | 2 µm | 5 µm | 15 µm |
| 07.06.02: | 0 | 861,875 | 418,239 | 55,103 |
| 18.07.02: | 41 | 15,383 | 7,128 | 1,652 |
| 17.09.02: | 103 | 7,512 | 2,814 | 85 |

Source: Labo Reports, Filtrex Services Nederland

