



CLEAN OIL
BRIGHT IDEAS

Hydraulic Oil

Hydraulic Control, Injection Pump and Exhaust Valves, MAN Engine

CJC™ Application Study

Application Study
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THE CUSTOMER

Container vessel: MS Colombo Express,
Hapag Lloyd, Germany

THE SYSTEM

Hydraulic control of the fuel injection pump and exhaust valves on main engine MAN 12 K 98 ME-C6.

Fluid type used in the hydraulics:

Oil type: Mobilgard 300
Viscosity: 111 cSt at 40°C
Oil Volume: 16,000 litres

THE PROBLEM

Because of problems in the hydraulic control system the customer took an oil sample. The oil analysis showed high contamination with water and particles.

THE SOLUTION

Installation in May 2008 of a CJC™ Fine Filter HDU 427/81 MZ with 12 CJC™ Fine Filter Inserts B 27/27 (3 µm absolute) and a pump capacity of 1,510 L/h at 60 Hz.

The CJC™ Fine Filters remove particles and oil degradation products from the oil and reduce the water content.

THE RESULT

Since the installation, there have been no failures. The convincing results (see table) prompted Hapag Lloyd to install identical filters on the other seven ships of this class.

COMMENT

*Mr. Lars Voß, Technical Inspector of the shipping company:
"Nothing but the installation of the CJC™ Fine Filters enabled us to meet the requirements of the ME-hydraulic system."*



MS Colombo Express



MAN Engine 12 K 98 ME - C6



CJC™ Fine Filter HDU 427/81 installed in the engine room

RESULT

Date	May 2008	01.08.08	15.09.08	09.10.08
Particles > 2 µm	3,031,840	25,398	43,610	8,465
Particles > 5 µm	384,800	11,544	16,936	1,539
Particles > 15 µm	35,650	633	725	66
ISO Code	22/19/16	15/14/10	16/15/10	14/11/7
Water, ppm	1,300	1,100	1,065	851