



CLEAN OIL
BRIGHT IDEAS

Lubrication Oil Excavator, Diesel Engine

CJC™ Application Study

Application Study
written by:
Marcelo Gonzalez L.
C.C.JENSEN Chile, S.L.

In cooperation with:
Kim Kjær
C.C.JENSEN A/S
Denmark

2002

CUSTOMER

Corporación Nacional del Cobre Codelco/Finning - Chile.
Division Radomiro Tomic Chile.

THE SYSTEM

Lube oil system on the diesel engine of a Caterpillar excavator type D10R. Engine type 3412TA with a power output of 570 hp and an oil sump of 60 ltr. Oil type 15 W 40.

THE PROBLEM

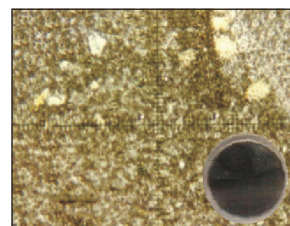
The customer experienced frequent failure of the injection pump due to high contamination of the lubricating oil.

THE SOLUTION

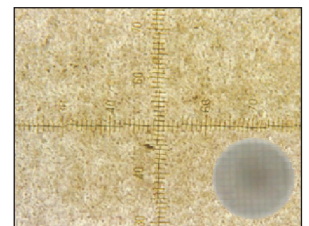
CJC™ Fine Filter HDU 27/27 PV with a 24 V DC motor installed off-line on the engine sump. The filter uses a **CJC™ Filter Insert A 27/27** filtering to 3 micron abs. and absorbing water and combustion material. The insert has a dirt holding capacity of 4 litres.

THE RESULT

The filter unit has reduced the contamination to a level 4 times lower than when new oil was introduced. This has arrested the problem and increased the life time of the injection pump and oil dramatically.



Before CJC™ Filter



After CJC™ Filter

THE RESULT

	5 Micron	15 micron	ISO	Insoluble gr/ltr
0 days new oil	847,610	71,940	20/17	0.663
16 days	161,250	4,180	18/13	0.519
23 days	179,570	3,810	18/12	0.210