



CLEAN OIL
BRIGHT IDEAS

Gear Oil Cone Crusher

CJC™ Application Study

Application Study
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CUSTOMER

Compañía Minera Disputada, Chile.
Nature of business: Copper Mine.

THE SYSTEM

Norberg Symons 5½ std. Cone Crusher (for medium and fine crushing of minerals) containing 800 litres of Esso Spartan 68 oil.

THE PROBLEM

The system suffered from grossly contaminated oil resulting in oil changes every 3 months and frequent, costly spare part replacement.

THE SOLUTION

CJC™ Fine Filter HDU 27/54 P-Y (400 L/h) fitted with 2 **CJC™ Filter Inserts B 27/27** (3 µm absolute). The CJC™ Filter unit is also equipped with a 125 µm suction filter.

Each CJC™ Filter Insert is capable of removing oxidation products, solid particles and water, and has a dirt holding capacity of 4 litres.

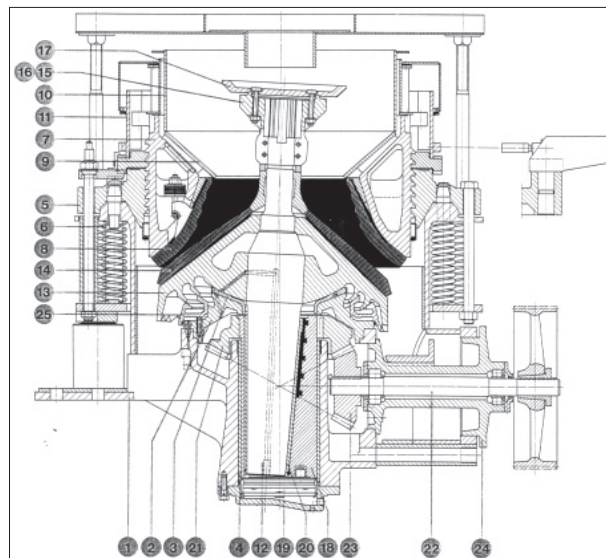
THE TEST

A comparison test was carried out on two identical cone crusher systems (crushers No. 3 and No. 4). Crusher No. 3 has the CJC™ Filter fitted. Oil samples were taken from both systems after 2, 300 and 1200 hours.

THE RESULT

After 300 hours of CJC™ oil filtration the contamination in crusher No. 3 was reduced by a factor 6. After the same period the oil in crusher No. 4 had to be changed due to high particle contamination and subsequent increase in viscosity.

The filter inserts in the CJC™ Fine Filter on crusher No. 3 were replaced after 1,200 hours. The inserts were weighed and proved to contain up to 12 kgs. of dirt each.



Norberg Symons 5 ½ std. Cone Crusher.



CJC™ Fine Filter
HDU 27/54 P-Y



Used CJC™ Filter Insert
Type B 27/27

THE RESULT

ISO 4406 Maintenance	After 2 h	After 300 h	After 1200 h	Cost US\$
Crusher No 3 <i>With CJC™ Filter</i>	22/15	16/12	17/11	4,975.00
Crusher No 4 <i>Without CJC™ Filter</i>	22/16	27/22	*)	13,950.00

*) Oil on crusher No 4 was changed after 314 hours.