



OIL FILTRATION SYSTEMS

CJC™ Application Study

Gear Oil - Cement Mill, Oven Gear



INDUSTRY

*Application Study
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2000

CUSTOMER

Aalborg Portland A/S, Denmark.
Contact person: Per Munk Bertelsen, Maintenance Manager.

THE SYSTEM

FLS Gear-TD1500, gear with torsion shaft for rotating cement oven. Oil 370 litres of MOBIL GEAR SHC 632.

THE PROBLEM

Oil samples had shown an extremely high particle content, leading to increased wear and tear on the gear teeth.

THE SOLUTION

A **CJC™ FineFilter HDU 27/27 PM-DY** with pump flow rate = 90 L/h and with a **CJC™ FilterInsert B 27/27** (3 µm abs) with a dirt holding capacity of 4 litres.

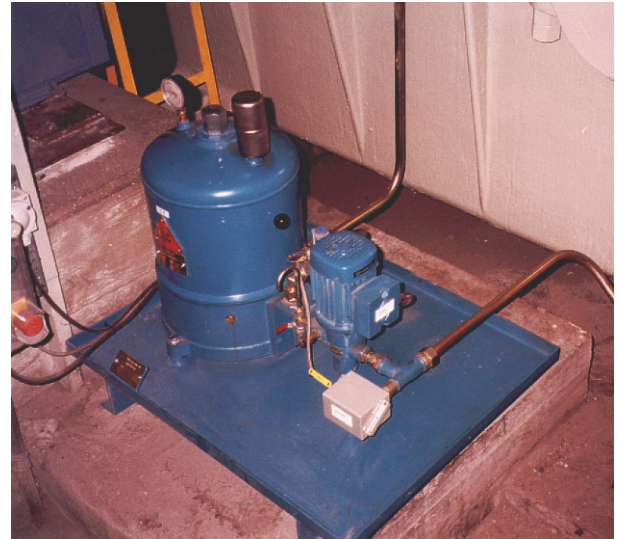
The CJC™ filter unit is installed on the gear system platform next to the gear housing drawing the oil from the bottom (sump) of the gear box and returning it to the top of the gear wheels.

THE TEST

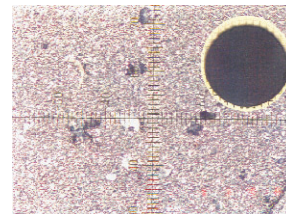
Oil sample No. 1 was taken before the overhaul of the system. Sample No. 2 was taken at filter start up after overhaul and with new oil. Samples Nos. 3, 4 and 5 were during the test.

THE RESULT

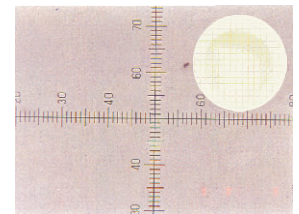
The achieved reduction from 3,257,000 particles >5µm to 6,969 will increase the gear bearings life by a factor of five.



The Portland Rotating Oven is driven by FLS Gear equipped with a CJC™ Filter for retaining particle, oxidation and water from the gear oil.



Before CJC™ Filter.



After CJC™ Filter.

THE RESULT

Date:	01/11	17/12	20/12	07/01	12/02	15/05
Particles >2 µm:	>500,000	>8,000,000	215,884	19,240	15,489	7,242
Particles >5µm:	>500,000	3,257,230	65,185	10,004	6,969	5,219
Particles >15µm:	>130,000	80,250	7,080	762	549	227
ISO CLASS:	20/20/18	24/22/17	18/17/13	15/14/10	14/13/9	13/12/8

COMMENTS

Per Munk Bertelsen, Maintenance Manager at Aalborg Portland A/S, Cement Mill:

"I can only recommend the use of CJC™ Oil Filters - as it helps us saving money on our maintenance budgets".

