



CLEAN OIL
BRIGHT IDEAS

CJC™ Application Study

Application Study
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CUSTOMER

China Datang Corporation Renewable Power
(Chifeng) Co., Ltd.

SYSTEM

Turbine: Sinovel FL1500
Gearbox: DHI - DCW PPSC1290
Oil Type: Shell Omala HD 320
Oil Volume: 600 L

PROBLEM

The gear system was heavily contaminated with solid particles and oxidation products. To obtain a life time of 20 years on the gears and bearings, the oil has to meet a contamination level of ISO 17/15/12 or better with a water content below 500 ppm.

SOLUTION

CJC™ Filter: HDU 27/27 PV
CJC™ Filter Insert: B 27/27, 3 µm absolute filtration degree
Pump Flow: 120 L/h
Dirt holding capacity: 4 L

TEST

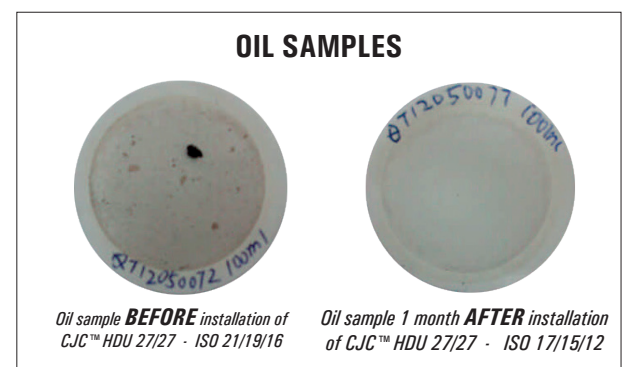
Oil sample no. 1 was taken when the filter was installed on the turbine.
Oil sample no. 2 was taken after 1 month with the filter in operation.

RESULT

After 1 month operation with the Fine Filer HDU 27/27 PV, the **oil cleanliness was improved 4 ISO Classes**. This equals to **double life time of the gear and bearings** in the wind turbine.



Sinovel FL 1500
China Datang Corporation



Oil sample **BEFORE** installation of CJC™ HDU 27/27 - ISO 21/19/16

Oil sample 1 month **AFTER** installation of CJC™ HDU 27/27 - ISO 17/15/12

RESULT

Filtration time	0 hour	1 month
ISO Code	21/19/16	17/15/12
2 µm particles	1,486,000	124,000
5 µm particles	267,000	31,000
15 µm particles	40,000	3,000
Membrane color	Dark	White
Water, ppm	32	11

pr. 100 ml