

Offshore Drilling



WINSONDA OIL FILTRATION SOLUTIONS

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Cases for gas turbines on offshore drilling platforms to remove varnish

Customer background

The client is an oil and gas resource exploration, development and production enterprise under China's largest offshore oil and gas production group.

Customer pain points

There is a large amount of sludge and varnish components in the lubricating oil system of the gas turbine, which makes the lubricating oil system of the unit unstable and unreliable.

Device name: GE/Solar/RUSTON gas turbine generator set

Solve the problem: remove varnish, reduce MPC value

Oil details

Fuel Tank Capacity: Varies

Oil Type: Turbine Oil

Oil usage time: varies

Choose our solution

Oil purifier model: WVD-II varnish removal unit

Oil purifier put into use time: from December 2016

Before purification

Operating conditions of the unit: high varnish tendency index, high oil temperature and control valve due to varnish problems, resulting in unstable control pressure

After purification

Unit operation: The varnish tendency index, oil temperature and control valve pressure return to normal.

Comprehensive evaluation

Each exploration, development and production operation area has successively put into use 10 sets of our oil purifiers for removing varnish, and the platform implements online circulation purification to ensure long-term stable operation of the equipment.



Customer feedback:

The G-7102 Solar gas turbine generator set on platform 32-2 of Huizhou Oilfield Operation Area of Shenzhen Branch of CNOOC (China) Co., Ltd. is currently experiencing unstable lubricating oil control pressure (the capacity of each set is about 1800L, oil specifications: Caltex Turbine oil Regal R&O 46 turbine oil), after investigation, there is a large amount of sludge and varnish components in the lubricating oil system, which makes the lubricating oil system of the unit unstable and unreliable, seriously affect the reliability of the lubricating oil system and hydraulic control components of the equipment. The main reason for this is that the lubricating oil system has been operating at high temperature for a long time, which leads to the precipitation of additives in the lubricating oil and the formation of varnish. Considering the importance of 3 sets Solar T60 gas turbines on Huizhou 32-2 platform and the same working conditions, it is hoped that the MPC value will be reduced to the qualified range by installing a special oil filter for removing varnish and sludge, and at the same time, the non-dissolving paint in the oil will be reduced. The varnish that has been attached to the film and components is removed and peeled off.

In December 2016, we selected the WVD-II varnish removal unit special for removing varnish and sludge from the company for online circulation purification. After the third-party oil samples were compared and tested before and after purification, the MPC value before purification was 31.5, and the MPC value dropped to 4.4 after purification. The content of wear metal elements in the oil also returned to normal, and the control pressure of the lubricating oil was gradually stabilized, and the effect was obvious.

Based on the successful experience of the 32-2 platform, our company continue to use the WVD-II varnish removal unit for removing varnish and sludge, and implement online circulation purification for the 26-1 platform to ensure long-term stable operation of the equipment.