

CASE STUDY

Injection Pump Upgrade Solves Reliability Problem

A North Sea operator experienced under performance and poor reliability following a non-Sulzer OEM re-rate of their injection pumps. Sulzer engineers addressed this by replacing the complete cartridge with one of Sulzer design. Designed specifically for the application, the retrofit eliminated the previous reliability problems as well as improving efficiency allowing a higher flowrate to be achieved for the same power input.



Reliable injection pumps are crucial for optimized oil production

The Sulzer difference

One of Sulzer's core business segments is the oil and gas industry. Our effective retrofit solution solved the reliability problem and allowed the operator to increase re-injection flow improving platform production rates by 20,000 bpd in a shorter time and at lower cost than installing new pumps.

The challenge

After being re-rated by the OEM, an injection pump installed in the North Sea failed to meet the anticipated performance levels as well as suffering fatigue cracking of the diffuser vanes and return guide vanes. In addition the pump also had low efficiency limiting its output. These problems combined to restrict oil production through poor injection performance and unscheduled outages caused by pump failure.

The solution

A completely new Sulzer cartridge was designed to fit the existing barrel maintaining the original footprint, connections and driver.

Customer benefit

Reliability issues and the associated unscheduled downtime were eliminated by installing the new Sulzer cartridge. A 7% efficiency improvement allowed increased injection rates for no power penalty resulting in an extra 20,000 bpd production from the field. The enhanced mechanical design ensured the newly increased performance was maintained for an extended time before the pump would require routine maintenance.



Sulzer hydraulics provide enhanced performance and reliability

Contact

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Applicable markets

PRN, oil and gas

Applicable products

Retrofit

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