



GEARBOX REDESIGN & DELIVERY

CHALLENGE

Qatar Shell GTL (QSGTL) faced several failing gearboxes in a critical part of the Pearl Gas-to-Liquids (GTL) plant. A peak load of 63.9kN-m was experienced during start-up and the existing gearboxes had a 44.5kN-m threshold.

SOLUTION

Shell invited Stork for an in-depth engineering study into the failing gearboxes, following Stork Oryx Turbo Machinery Services' successful participation in major turnarounds for Shell in 2015 and 2016.

The engineering study, executed by Stork Gears in Rotterdam, identified the gear sets could be redesigned to enable the gears to withstand a minimum peak load of 65kN-m during startup. This resulted in Shell awarding Stork with a three-year contract for the delivery of 100 redesigned gear sets for the GTL plant.

This integrated way of working is an excellent example of how Stork improves asset reliability and performance, while working with its Clients to find optimal solutions to all challenges.



Stork and Shell personnel worked together to deliver the optimal solution

CLIENT BENEFITS

Increased reliability

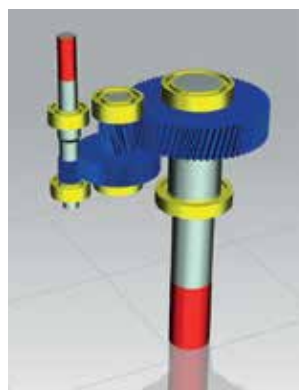
Stork's solution will deliver improved asset reliability without large and expensive asset modifications.

Significant cost-saving

Stork's offer was impressive and delivered a better price per unit.

Gearbox improvements

Stork shared its knowledge and expertise with Shell's engineers to improve the existing gearboxes.



Stork's redesigned gearbox

PROJECT FAST FACTS

Project : Gearbox redesign and manufacturing of new gear sets

Client : QSGTL

Services : Rotating equipment, gears services

Date : 2016 - 2019

ABOUT PEARL GTL

Shell operates the world's largest Gas-to-Liquid plant in Qatar in which up to 1.6 billion cubic feet per day of wellhead gas from 22 offshore wells is converted to gas-to-liquids.