

PERFORMANCE STUDIES

Field Reports from Cook Compression

EMISSIONS REDUCTION
REPORT# 109

California Gas Producer Hits Emissions Targets With Cook

SCENARIO

A major Southern San Joaquin Valley production/gas gathering/sales company was required by their local air quality board to reduce cylinder emissions on 90% of their reciprocating gas compressors.

The company's first step was to assess their entire compressor operation and develop an action plan focused on making significant improvements in three key areas: maintenance practices, compressor cylinder operation and repair services. Their next step was to contact Cook Compression for assistance.

SOLUTION

Cook Compression responded with a broad range of products, services and technical support to help the customer meet their emissions challenges. Included were upgrades to compressor pistons/rod assemblies, rod pressure and wiper cases, and packing. Cook was also asked to provide the necessary training on the new products and procedures to accommodate the changes.

The heart of the project was the conversion of OEM pressure and wiper cases to COOK CLEAN cases. COOK CLEAN cases are purged systems that also include a range of other features customized to meet specific emission-reduction objectives.

RESULTS

Over the first 18 months, most of the compressors were converted. After three years, the customer confirmed that the new packing cases not only achieved their intended emissions reduction, but also provided improved longevity.

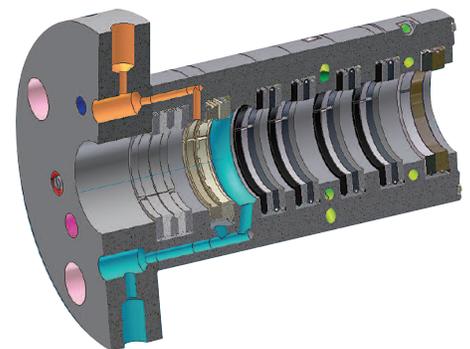
Before this project, the company averaged 150 to 225 case repairs per year. After three years, that number was reduced to fewer than 50 cases.

The upgrade included a change to advanced Cook material for most rings and riders. The company noticed significant savings from extended ring/rider service life. Even better, the material also reduced cylinder wear.

With improvements to the pressure and wiper cases, the customer noticed a 200-300% improvement in machine reliability – all while meeting their desired emission standards.

The following year, the customer was faced with deep budget cuts, which affected the preventive maintenance (PM) schedule. All compressors were forced to operate past scheduled PM's. The COOK CLEAN cases and upgrades easily handled the increased demands due to extended PM schedules. At last report, some of the compressors were approaching 32,000 hours of operation.

For more details about emissions reduction and performance upgrades, contact your Cook Compression representative or visit cookcompression.com.



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