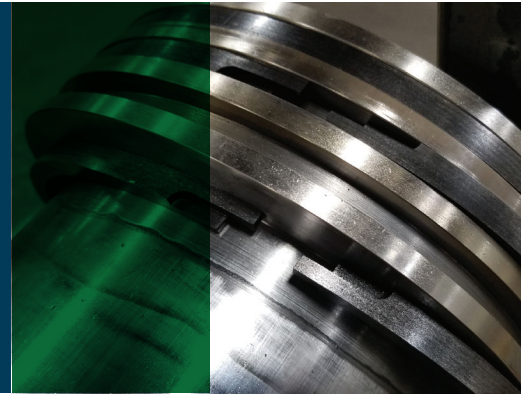


Remanufacturing Leaking Cylinders Improved Quality and Resulted in Significant Cost Savings



The problem: Low quality, leaky cylinders becoming a costly challenge

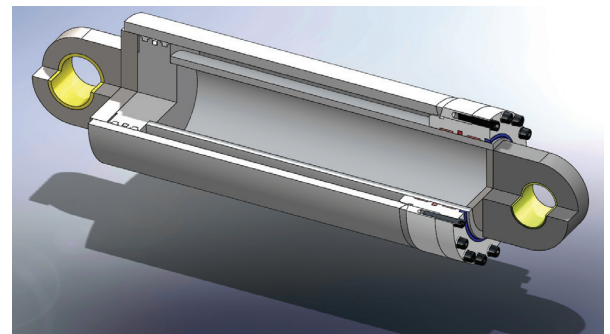
A midstream oil and gas equipment manufacturer fought subpar cylinder performance for several years. The cylinder performance issues detracted from the overall operational successes, quickly accumulating non-productive time (NPT) on pipeline infrastructure projects.



For this application, the hydraulic cylinders provided the bending force on large diameter pipes (up to 36" diameter) as it was fed through the bending carriage. Over a short period of time, the inadequate cylinder design and application forces created hydraulic leaks at the head glands. Consequently this resulted in equipment removal from standing projects as well as replacement of the cylinders, both costly procedures.

The solution: JARP remanufactured cylinders exceeding the quality of the OEM design, in half the time

As a result of the ongoing cylinder leakage issues and current supplier's inability to repair the current cylinders in operation, the customer contacted JARP for their expertise. The initial JARP engineering consultation process revealed that in fact the current cylinders in operation could be restructured. Better yet, remanufacturing the cylinders would grant them a better overall design matched for their applications.



Continued on back

Upon receiving the first batch of cylinders, each cylinder was subject to reverse engineering to gain a full understanding of the defects inherent to the current design and application. New design modifications to the head gland, piston, and seal package were implemented to eliminate the leaking cylinder issues previously experienced.

On the manufacturing floor, JARP's ability to disassemble the cylinders, salvage components, and integrate them within their responsive supply chain allowed the fixed cylinders to be shipped in 50% less time than it would take for new cylinders.

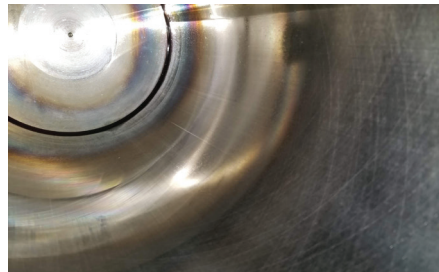
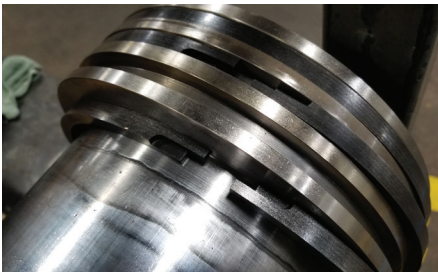
The result: High-quality cylinders and significant cost savings

With JARP's engineering expertise and re-manufacturing capabilities, the customer was able to:

1. Eliminate an ongoing field issue
2. Realize at face value 30-50% cost saving per cylinder
3. Reduce equipment NPT for maintenance and replacement cylinders.



The equipment operators we worked with identified the value of this class of efficiency and operational excellence in their supply chain. If you are looking for a strategic partnership to help you get your hydraulic cylinder manufacturer back to OEM specifications, contact JARP Remanufacturing at (715) 804-5077.



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