

Success Story: Compressor rotor refurbishment

Originally assigned to replace the rotor shaft of a Dresser-Clark centrifugal air compressor with a new one provided by the customer, the inspection in our local PrimeServ service shop revealed additional damage that required further repairs and component rebuilds beyond the original scope.

A leading provider of mining explosives and blasting services wanted to have the replacement rotor of its 1962 Clark Bros. centrifugal air compressor prepared for possible installation. As a previous inspection of the compressor rotor by a local supplier had revealed that the rotor shaft was corroded and heavily rubbed in many areas, the existing shaft was to be replaced with a new one supplied by the customer. As part of the tendering and awarding process, the customer decided to engage Everllence PrimeServ as recognized OEM with the refurbishment.

Challenge

During disassembly and inspection of the compressor rotor in our Surabaya service shop, our experts discovered that some parts including interstage sleeves, locking rings, split rings and impeller keys were also no longer usable. In addition, the new shaft provided by the customer exhibited to have pitting corrosion in both bearing journal and probe tracks areas. With the customer lacking spares and long lead times from the OEM, he entrusted Everllence PrimeServ to also manufacture the missing parts and refurbish the rotor shaft provided.

Overview

Application	Ammonium nitrate production
Machine type	Clark Bros centrifugal air compressor
Reference year	2024
Service shop	Everllence PrimeServ Surabaya, Indonesia
Key services	• Destacking and inspection of rotor • Inspection and refurbishment of new shaft • Reverse engineering and new manufacturing of sleeves, rings and keys • Restacking of impellers with new shaft and balancing of rotor • Application of anti-fouling and touch-up coating • All works performed according to our OEM standards



Success Story: Compressor rotor refurbishment

Solution

The team in our Surabaya service shop executed the compressor rotor refurbishment including all additional works according to our OEM standards – showcasing our extensive experience, skills, and capabilities in repairing all types of turbomachinery.

The interstage sleeves, locking and split rings, and the impeller keys were reverse engineered and newly manufactured by our experts. To rectify the pitting corrosion on the new rotor, the probe tracks were grinded and resurfaced, and the running treads of the journal bearings were polished. After refurbishment and restacking, the compressor rotor was balanced and given a 3-layer anti-fouling protection and touch-up coating – ready for installation at customer site during any upcoming maintenance.

Benefits

- Local value creation by complete planning and execution in our local PrimeServ Everllence workshop
- High flexibility with regard to unplanned additional works
- Short lead times
- Execution of entire inspection and repair work based on our proven OEM standards

Impact

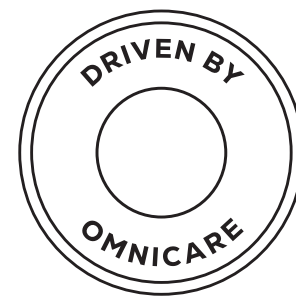
PrimeServ Omnicare provides the complete range of lifecycle support solutions for all your turbines and compressors as a one-stop-solution. This includes full train services as spare parts, inspections, repairs, overhauls, and modifications as well as digital service solutions and footprint replacements of end-of-life equipment with new Everllence machines.



After stacking



Blasting before coating



Connect with us

Turn your challenges into success stories with Everllence PrimeServ. If this story inspires you and you'd like to explore similar solutions, connect with us. We are here to help you achieve your goals.

Everllence

PrimeServ Omnicare
46145 Oberhausen, Germany
P +49 208 692-01
info@everllence.com
www.everllence.com

Talk to your local expert

Name	Country/Region	E-Mail
Kee New Ting	APAC	kee-new.ting@everllence.com
Liu Zheng (Tony)	China	tony.liu@everllence.com
Karl-Heinz Berdais	Pacific (AU, NZ, PNG)	karl-heinz.berdais@everllence.com
Daniel Wyler	Indonesia	daniel.wyler@everllence.com
Stefan Langhein	SEA (MY, TH, VN, SG, BR, PH)	stefan.langhein@everllence.com
Kwang Young Heo	NEA (S. Korea, Japan, Taiwan)	kwangyoung.heo@everllence.com