

CASE STUDY

90 Ton Excavator Arm Cylinder

Our Industrial Repair Services team strives to exceed customer expectations by using our corporate Core Values as our guiding principles:

- 1 **QUALITY** in our team members services and facilities.
- 2 **INNOVATION** in our approach to customer repairs and upgrades.
- 3 **COMMITMENT** by our team to excellent service and customer satisfaction.
- 4 **CUSTOMER FOCUS** in everything we do.

Component & Issue

- A critical service excavator for a coal mining operation was experiencing repetitive component failure, resulting in unplanned equipment downtime and production losses
- This failure was occurring at the rod end, on one of the arm cylinders

Inspection Findings & Proposal

- Inspection and root cause analysis were completed on a failed cylinder
- Analysis revealed that the unique operational requirements of this excavator were resulting in excessive tensile loading of the cylinder head mounting bolts

- In coordination with our engineering team, a design modification was proposed to improve cylinder performance without compromising other aspects of the excavator design

Deliverables

- ✓ **Total Cost of Ownership**
The proposed modifications were made to the cylinder, improving the strength of the failure area by 60%, and reducing costly production losses
- ✓ **Reliability**
This modification allowed for an improved MTBF (Mean Time Between Failure), as well as a significant reduction in unplanned downtime

✓ Safety

By reducing the probability of failure cylinder failure, we also created safer working conditions for the machine operator

Whatever your industry, Brandt delivers unmatched end-to-end solutions, refurbishing components and equipment to OEM specifications or better. And, with 24/7/365 technical support, we'll always be there to help ensure your success, day or night.

It's what we do. We build confidence.

