

# CASE STUDY

## **EIGHT YEAR ANALYSIS; BIRRANA™ WHEEL END TECHNOLOGY EXTENDS LIFE AND LOWERS TOTAL COST OF OWNERSHIP**

H-E PARTS INTERNATIONAL (H-E PARTS) PROVIDES SOLUTIONS FOR THE ENTIRE DRIVETRAIN, SPECIALIZES IN THE RE-MANUFACTURING OF MAJOR MOBILE EQUIPMENT COMPONENTS, AND OFFERS INDUSTRY LEADING BIRRANA™ PRODUCTS. THE ENHANCED DESIGN FEATURES OF THE BIRRANA™ PRODUCTS DELIVER EXTENDED LIFE, EASE OF MAINTENANCE AND SUPERIOR PERFORMANCE.

A surface coal mining company in Powder River Basin, Wyoming saw H-E Parts present at Rocky Mountain Master Mechanics Association in 2010 and approached our team in hopes of reducing maintenance costs and extending fleet life. The customer's average component life was two years, or 12,000 hours. They desired more predictable maintenance scheduling and lowered cost per hour. H-E Parts estimated we could improve average life by at least 60%. The customer agreed to test the Birrana™ technology on eight rear wheel groups.

H-E Parts engineering team examined the customer cores and analyzed historic modes of failures. A remanufacturing plan was agreed upon and eight Birrana™ enhanced wheel groups were installed. Each Birrana™ enhanced wheel group included:

- Birrana™ control fit wheel bearing setup
- Contamination guard
- Isolation seal
- Long life friction discs
- Advanced bearing design and specifications

The eight Birrana™ enhanced wheel groups lasted an average of five years, or 32,000 hours, meaning the customer saw increased life of over 150%.

<b>PREVIOUS SUPPLIER</b>	12,000 operating hours
<b>BIRRANA™ ENHANCEMENTS</b>	32,000 operating hours

H-E Parts is committed to increasing component life and lowering costs. We take pride in rebuilding key components for leading mining companies around the world. Since the initial purchase of eight wheel groups, this customer has continued to work with H-E Parts as a strategic partner for the last ten years.

**TODAY, OVER 60 OF OUR COMPONENTS OPERATE AT THE CUSTOMER SITE.**

<b>LOCATION</b>	Powder River Basin, Wyoming, U.S.
<b>APPLICATION</b>	Surface Thermal Coal Mine
<b>PRODUCT</b>	CAT 793 Rear Wheel Group



CAT 793 rear wheel group as received



CAT 793 rear wheel group after H-E Parts remanufacture

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