MINING
WEAR PARTS

CASE STUDY

EXTENDING ML80 SERVICE LIFE

PROJECT

ML80 EXCITERS

CLIENT

BHP

OVERVIEW

Mount Whaleback Mine Site, one of Australia's largest iron ore operations, was experiencing ongoing issues with the service life and high costs of OEM-supplied ML80 exciters used on vibrating screens and grizzly feeders. Frequent failures and costly replacements were impacting budgets and reliability. Mining Wear Parts (MWP) was engaged to provide a cost effective, performance-driven alternative.

PROBLEM

The site reported infrequent but costly failures across both new and refurbished OEM exciter units. Each OEM ML80 exciter carried a high purchase price, while repairs were inconsistent in cost and outcome often incurring non-refundable strip and assessment fees when units were deemed beyond repair. The service life of these exciters was shorter than expected, causing the operation to face regular, unplanned expenditure and reduced equipment availability.

SOLUTION

To address the cost and reliability challenges, MWP supplied three compatible ML80 exciters as a high-value alternative to the OEM units. The exciters were installed on Mount Whaleback's vibrating screens, with oil samples taken monthly to track performance indicators including iron concentration, Particle Quantification (PQ) Index, and oil viscosity.

RESULTS

25%

Cost reduction

SOLUTION

The MWP exciters were supplied at approximately 25% lower cost per unit compared to the OEM alternative, helping reduce overall replacement expenditure. Performance data showed that the MWP units performed equal to or better than the OEM exciters, maintaining stable operation beyond the typical service life benchmark.

Initial variations in oil sample readings were traced to sampling inconsistencies rather than equipment performance, confirming the durability and long term performance of the MWP design. In addition, MWP strengthened supply reliability by securing trusted component suppliers and maintaining local stock, ensuring immediate availability and continuity of supply.

The success of the initial installation led Mount Whaleback to proceed with the installation of a fourth MWP exciter. At the time of reporting, the first three MWP exciters originally placed into service remained operational, reinforcing confidence in the performance, reliability, and service life of the MWP solution.

Beyond the installation, MWP also provided a full suite of compatible parts for exciter rebuilds, including hold down bolts and key hardware, giving Mount Whaleback the flexibility to manage maintenance efficiently, minimise downtime, and extend overall asset life.

BENEFITS

ENHANCED PERFORMANCE

Data showed that MWP exciters delivered similar or better performance than the OEM units, with the first three exciters remaining in service following the installation of a fourth unit. MWP units matched or exceeded the OEM's typical service life benchmark.

IMPROVED SUPPLY CONTROL

MWP secured reliable suppliers for these exciters, and all associated parts, and stocked them to ensure ready availability, with the capacity to adjust stock levels based on the mine's needs