

CASE STUDY

IMPROVING KRUPP 16-12N JAW CRUSHER PERFORMANCE

H-E PARTS INTERNATIONAL (H-E PARTS) SPECIALIZES IN PROVIDING WEAR MANAGEMENT SOLUTIONS. H-E PARTS LINER DEVELOPMENT PROGRAM HAS BEEN DEVELOPED TO OPTIMIZE LINER DESIGNS ON A SITE BY SITE BASIS AND INVOLVES THE ONGOING ANALYSIS OF SITE OPERATIONAL REQUIREMENTS, MACHINE OPERATING PARAMETERS AND WORN LINER PROFILES.

Newcrest Lihir Gold Mine located in the New Ireland Province of Papua New Guinea, approached H-E Parts to provide a solution which would extend the liner life of their primary Krupp 16-12N jaw crusher liners. The OEM supplied liners were experiencing excessive wear and only lasting 12 weeks before requiring change-out, putting a strain on maintenance resources and increasing processing costs. Additionally the customer also requested that the new liner solution incorporated tightening of the crusher's closed side setting (CSS) to further reduce costs associated with milling.

H-E Parts recommend traveling to site and adopting a liner development program that utilizes state-of-the-art laser scanning in conjunction with H-E Parts proprietary ChamberVision™ and CrusherVision™ software, allowing H-E Parts dedicated engineering specialists to offer a solution to extend liner life and reduce total cost of ownership. Following the analysis of worn liner profiles, a new set of liner profiles were offered to the customer that:

- Increased liner life by better utilizing the adjustment parameters of the crusher
- Balanced the teeth volumes of the liner to ensure maximum material utilization
- Accounted for higher fixed jaw wear throughout the life of the liner set
- Maintained a more consistent gap across the discharge area of the chamber

The proposed profiles were accepted by the customer and a set of CME™ liners installed into the crusher. The result far exceeded the original OEM life of 12 weeks, achieving 30 weeks of production before being removed.

H-E PARTS LINER PERFORMANCE TABLE

	OEM	H-E PARTS
Liner life (wks)	12	30+
Life Improvement (%)		150%+

LOCATION	Newcrest Lihir
MINE TYPE	Gold Mine
APPLICATION	Krupp 16-12N Jaw Crusher



Worn OEM fixed jaw liner



Optimized CME™ jaw liners

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