

JADCO CASE STUDY



PC7000 SHOVEL REBUILD

OVERVIEW

The mining customer had an existing shovel that had been in service for 24 months, 6 months longer than expected and utilized 2" AR 400 bars across the floor, backwall, and bottom ski's.

Enhanced with QT-PLUS & CHROMEWELD 600, it took ~9 months to begin showing any kind of rounding of edges in the most extreme impact/abrasion areas.



WHO: GOLD MINE • SURFACE OPEN PIT
WHAT: PC7000 SHOVEL
WHERE: NORTHERN BRITISH COLUMBIA, CANADA

INDUSTRY: MINING
CHALLENGE: HIGH IMPACT, HIGH ABRASION
SOLUTION: CHROMEWELD® 600, QT-PLUS



CHALLENGE:

High Impact / Abrasive Wear On PC7000 Mining Shovel

- Shovel was used 6 Months beyond normal maintenance period causing structural damage with use of 2" AR400 bars, across floor, backwall & bottom skis.

SOLUTION:

Collaborating with SMS Equipment on design options:

- CW600 overlay on the floor and cheeks
- JADCO QT-PLUS as tumble bars and edge protection

EXPLANATION:

The mining customer's shovel had been in service for 24 months, running six months past its intended life. It was built with 2-inch AR400 bars on the floor, backwall, and bottom skis. The extended operation, combined with the limited wear resistance of AR400 in severe impact and abrasion, led to structural damage by the time the bucket reached JADCO's service partner, SMS Equipment. Throughout its service life, the 2-inch AR400 bars required frequent replacement as they wore out quickly under these conditions. JADCO, in collaboration with SMS Equipment, determined CW600 and QT-PLUS installed strategically would extend the life of the shovel while minimizing downtime.

RESULTS

WEAR RATE MONITORING (VISUAL INSPECTION)

- QT-PLUS SHOWED ONLY MINOR EDGE ROUNDING AFTER NINE MONTHS
- CW 600 FLOOR DOCUMENTED WITH NEGLIGIBLE WEAR

PAYOFF

WITH LIGHT MONITORING OF THE LEADING-EDGE 2 INCH BARS, THE CUSTOMER EXPECTS TO REACH 24 MONTHS AND REDUCE MAINTENANCE COSTS WHILE PROTECTING THE BUCKET STRUCTURE.

33 PERCENT
EXTENDED LIFE

GET A QUOTE

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