

Crusher blow bars with 60 mm TiC inserts last 3.5 times longer than blow bars without them

Unicast's manganese steel alloy and titanium carbide inserts team up to reduce crusher blow bar replacement at a Colombian limestone crushing operation

PRODUCT

Unicast crusher blow bar (M19 with 60mm TiC inserts)

APPLICATION

Limestone operation, Laron crusher.

CHALLENGE

Increase the lifespan of the crusher's blow bar, which was only lasting two months before needing to be replaced.

SOLUTION

The crusher was fitted with Unicast's blow bar, which was cast in an M19 manganese alloy with 60 mm TiC inserts.

RESULTS

Unicast's blow bar had a wear life of seven months, 3.5 times longer than the original, thanks to its superior alloy.

BACKGROUND

Cemex's limestone operation in Cúcuta, Colombia was having trouble with the blow bars in the Laron crusher in 2017. Fabricated with 14 percent manganese, the blow bars were only lasting two months at a time.

CHALLENGES

Cemex wanted to improve both the yield and the lifespan of its crusher blow bars.

SOLUTION

Unicast fabricated a blow bar using its M19-TC alloy for high abrasion and impact crusher parts. The 19 percent manganese alloy comes with 60 mm-long titanium carbide (TiC) inserts, which strengthen a blow bar's high-wear zone to give it the maximum possible wear life and reduce breakage.

PERFORMANCE & RESULTS

After the Unicast-fabricated blow bar was installed in the crusher, it lasted an impressive seven months before needing to be replaced — a whole 3.5 times longer than the previous blow bar.

SUMMARY

Unicast's 19 percent manganese blow bar with re-enforced TiC inserts lasted 3.5 times as long as the original, cast in 14 percent manganese — more than meeting Cemex's goal of increasing the life of its crusher blow bar.



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