Weartech® SHS™ Overlay Wear Plate

Exceeds Wear Life of 500 Brinell Q&T Plate by 400%

PROBLEM: SEVERE SLIDING ABRASION

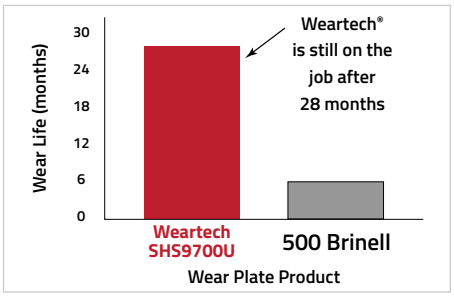
At an underground molybdenum mine in Colorado, a small fleet of 90 ton side dump haulpak trucks transport ore from loading chutes to a primary crusher.

When a truck dumps ore at the crusher, the entire load slides over a pair of lower side doors, each lined with a 1/2 in. (13 mm) Brinell 500 wear plate. Severe sliding abrasion results in the Brinell 500 wear plates requiring replacement every 6 months.

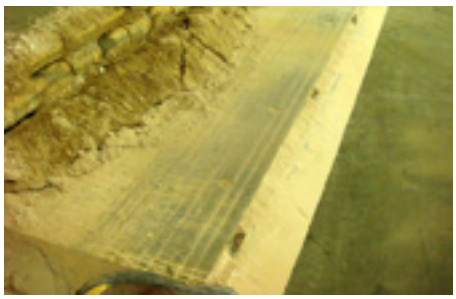
SOLUTION:
WEARTECH SHS OVERLAY WEAR PLATE

To reduce the number of replacement cycles for side door wear plates, in December 2008 the mine replaced a pair of Brinell 500 wear plates on one truck with Weartech® SHS™9700U overlay wear plates which feature higher resistance to severe sliding abrasion and longer service life.

Wear Plate	Type	Thickness	Overlay	Substrate	Hardness	ASTM G65-04, Procedure A
Weartech SHS9700	Overlay	1/2 in (13 mm)	1/4 in (6 mm)	1/4 in (6 mm)	66 - 69 HRc	0.13 g mass loss
500 Brinell	Q&T	1/2 in (13 mm)	—	—	49 - 53 HRc	1.20 g mass loss



Weartech SHS9700U has demonstrated a 4x improvement over Brinell 500 wear plate



Weartech SHS9700U overlay wear plate, 1/4 in. (6 mm) overlay on 1/4 in. (6 mm) substrate

Weartech wear plates remain in service after hauling over 3 million tons in 28 months

RESULT:
WEARTECH SHS EXCEEDS 500 BRINELL WEAR LIFE BY MORE THAN 4X

The Weartech SHS9700U overlay wear plates remain in service after hauling more than 3 million tons in 28 months while 500 Brinell plates are replaced at an average rate of every 6 months. Benefits to the mine include:

Elimination of:

- 3 pairs of replacement wear plates
- Manpower hours during 3 replacement cycles

Increases in:

- Truck service time
- Production output and revenue

The Lincoln Electric Company
22081 St. Clair Avenue ▪ Cleveland, OH ▪ 44117 ▪ U.S.A.
www.lincolnelectric.com