

Development of New Skid Buttons with Ceramic Composite Metal for Slab Reheating Furnace

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200mm 50mm 61 3

Synopsis :

In the reheating furnace of the walking beam type, skid marks caused by skid buttons should be minimal for stabilizing slab quality and reheat performance. Not strong enough at high temperatures, the conventional cobalt-based heat resistance alloy develops compressive deformation after a short period of operation, entailing a gradual increase in skid marks. In reconstructing the slab reheating furnace of Mizushima hot strip mill from the old pusher type with hot skids to the walking beam type,

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要旨

\bar{t}_s : Average temperature along the slab
thickness or slab height

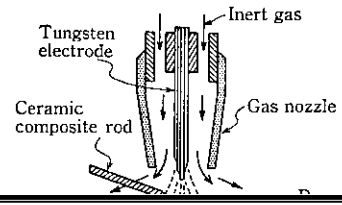


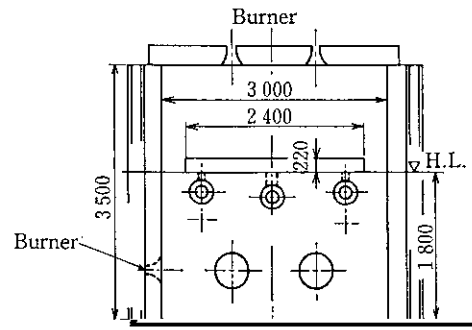
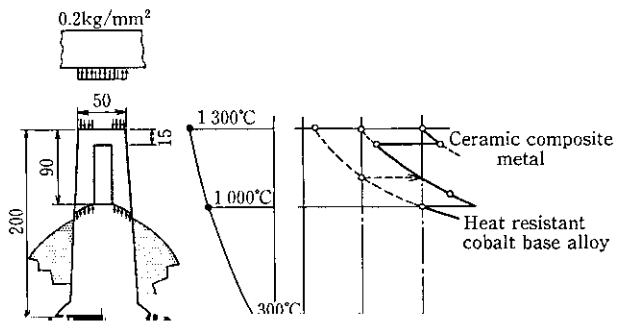
図1は、スキッドボタンの断面形状を示す。図1は、スキッドボタンの断面形状を示す。図1は、スキッドボタンの断面形状を示す。



Table 1 Comparison of material characteristics between conventional and ceramic composite metal

	Conventional metal	Ceramic composite metal
	Cobalt alloy ($<0.15\% C$)	Cobalt alloy





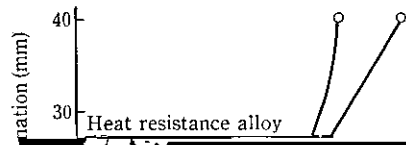
... 鋼片加熱炉用セラミック複合材製スキッドボタンの開発 ... 1. 鋼片加熱炉用セラミック複合材製スキッドボタンの開発 ... 接触時間が短い場合には、従来 ...

タン形状を採用した場合とほとんど差がないことが分る。

水島製鉄所熱間圧延工場の加熱炉の場合は、移動ビームの接触時

... 鋼片加熱炉用セラミック複合材製スキッドボタンの開発 ...

ームのみに新ボタン形状を採用しても、移動ビームによって生ずる



Slab size: 215 mm t \times 1 200 mm W \times 11 800 mm L

No.1 furnace (Pusher type)	No.3 furnace (Walking beam type)