

Title (en)  
STIRRING ROLLER FOR A CONTINUOUS SLAB-CASTING MACHINE

Title (de)  
RÜHRWALZE FÜR EINE MASCHINE ZUM DURCHGEHENDEN GIESSEN VON PLATTEN

Title (fr)  
ROULEAU BRASSEUR POUR MACHINE DE COULÉE CONTINUE DE BRAMES

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Application  
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Abstract (en)  
[origin: WO2011117479A1] Said divided stirring roller is formed of two remote, aligned half-rollers (4, 5) that each have, built therein, a polyphase linear inductor (40, 50) that is mounted, in a stationary manner, near the outer ferrule (6, 12) of each half-roller so as to provide an annular space (60, 61) therebetween for flow of a coolant, each inductor being capable of generating a magnetic field that travels along the width of the cast slab (3). Said two half-rollers are externally mounted into end roller bearings (9, 15) and internally mounted into a common intermediate roller bearing (10) that is attached therebetween. The inductors are provided with hollow end portions that have a reduced diameter so as to also rest in said three roller bearings (9, 15, and 10) and be in communication with the elements of a cooling system that includes the annular spaces (60, 61). The divided stirring roller having two separate half-rollers, according to the invention, is designed and suitable for continuous casting of extra-wide slabs. Said stirring roller is formed of a special tool for controlled electromagnetic stirring of the molten metal for an optimized exchange, of heat as well as material, between the top and the bottom of the casting machine. Said stirring roller, in the simplified version thereof, is without an intermediate roller bearing and has a single ferrule that is suitable for slabs of ordinary width.

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