

Title (en)

CLEANING SLABS IN FRONT OF THE ROLLER HEARTH FURNACE OF A MINI MILL

Title (de)

BRAMMENREINIGUNG VOR DEM ROLLENHERDOFEN EINER MINI-MILL

Title (fr)

NETTOYAGE DE BRAMES DEVANT LE FOUR A ROULEAUX D'UNE MINI-ACIERIE

Publication

EP 1423216 B1 20050216 (DE)

Application

EP 02776944 A 20020828

Priority

- DE 10143868 A 20010907
- EP 0209572 W 20020828

Abstract (en)

[origin: US2004261206A1] The invention relates to a device for removing loose cinder from the surface of a slab, especially a thin slab of a mini mill. One such mini mill comprises at least one slab casting machine, a slab separating device, a thermal compensation furnace and at least one roll stand comprising a reeling installation. The inventive device is improved in that a spray device (11) comprises at least one lower spray pipe (2) and at least one upper spray pipe (3) in relation to the slab (1), each spray pipe being fitted with a number of spray nozzles (4). Said spray device (11) is arranged in front of the roller hearth furnace (5) of the mini mill and is connected to a water supply (6) having the technologically required pressure and a volume flow which is adapted to the number of spray nozzles (4). The invention also relates to an operating method for the spray device (11).

IPC 1-7

B21B 45/08

IPC 8 full level

B22D 11/12 (2006.01); **B21B 45/00** (2006.01); **B21B 45/08** (2006.01); **B22D 11/124** (2006.01); **B21B 1/46** (2006.01)

CPC (source: EP KR US)

B21B 45/08 (2013.01 - EP KR US); **B21B 1/466** (2013.01 - EP US); **B21B 45/004** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

US 2004261206 A1 20041230; AT E289233 T1 20050315; AU 2002339453 B2 20080221; BR 0212218 A 20040921; BR 0212218 B1 20100629; CA 2459881 A1 20030320; CA 2459881 C 20100824; CN 1553833 A 20041208; DE 10143868 A1 20030327; DE 50202292 D1 20050324; EG 23334 A 20041229; EP 1423216 A1 20040602; EP 1423216 B1 20050216; ES 2236593 T3 20050716; JP 2005501729 A 20050120; KR 100880148 B1 20090123; KR 20040029467 A 20040406; MX PA04002153 A 20040723; RU 2004110403 A 20050610; RU 2296021 C2 20070327; UA 78237 C2 20070315; WO 03022475 A1 20030320

DOCDB simple family (application)

US 48900404 A 20040823; AT 02776944 T 20020828; AU 2002339453 A 20020828; BR 0212218 A 20020828; CA 2459881 A 20020828; CN 02817558 A 20020828; DE 10143868 A 20010907; DE 50202292 T 20020828; EG 2002090994 A 20020904; EP 0209572 W 20020828; EP 02776944 A 20020828; ES 02776944 T 20020828; JP 2003526592 A 20020828; KR 20047003336 A 20020828; MX PA04002153 A 20020828; RU 2004110403 A 20020828; UA 2004042616 A 20020828