

Title (en)

METHOD AND APPARATUS OF PRODUCING ROUND BILLETS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ERZEUGUNG VON RUNDEN KNÜPPELN

Title (fr)

PROCEDE ET DISPOSITIF DE PRODUCTION DE BILLETES RONDES

Publication

EP 1144144 B1 20020703 (DE)

Application

EP 99964428 A 19991207

Priority

- DE 9903959 W 19991207
- DE 19860570 A 19981222

Abstract (en)

[origin: WO0037200A1] The invention relates to a method and to a device for producing continuously cast billets in a production plant consisting of a vertical-type continuous casting machine for casting round billets which is provided with a horizontal discharge chute, at least one descaling device (3, 7) and a plurality of subsequent roll stands (5, 6). For producing round billets with a diameter ranging between 90 and 300 mm, the surface of the solidifying round billet is descaled once the billet leaves the ingot mold (1) and before it is fed to the subsequent rolling unit (5). The near-surface skin is precooled precisely to the temperature that is the optimum for the respective steel before the round billet is formed in at least three subsequent horizontal passes (5) and then in one vertical pass (6). The surface of the pre-formed billet is again descaled before the last pass (7).

IPC 1-7

B22D 11/12

IPC 8 full level

B21B 1/46 (2006.01); **B21B 1/00** (2006.01); **B21B 45/04** (2006.01); **B21B 45/08** (2006.01); **B22D 11/12** (2006.01)

CPC (source: EP KR US)

B22D 11/12 (2013.01 - EP KR US)

Cited by

CN105363867A

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0037200 A1 20000629; AT E219977 T1 20020715; AU 3031200 A 20000712; BR 9916414 A 20010918; CA 2356609 A1 20000629; CA 2356609 C 20080325; CN 1170646 C 20041013; CN 1331616 A 20020116; DE 19860570 C1 20001005; DE 59901981 D1 20020808; EP 1144144 A1 20011017; EP 1144144 B1 20020703; ES 2176042 T3 20021116; JP 2002532259 A 20021002; JP 4430828 B2 20100310; KR 100658647 B1 20061215; KR 20010089679 A 20011008; US 6491771 B1 20021210

DOCDB simple family (application)

DE 9903959 W 19991207; AT 99964428 T 19991207; AU 3031200 A 19991207; BR 9916414 A 19991207; CA 2356609 A 19991207; CN 99815004 A 19991207; DE 19860570 A 19981222; DE 59901981 T 19991207; EP 99964428 A 19991207; ES 99964428 T 19991207; JP 2000589298 A 19991207; KR 20017007992 A 20010622; US 86880701 A 20010803