

Title (en)

METHOD AND DEVICE FOR CASTING METAL CLOSE TO FINAL DIMENSIONS

Title (de)

VERFAHREN UND VORRICHTUNG ZUM ENDABMESSUNGSNAHEN GIESSEN VON METALL

Title (fr)

DISPOSITIF ET PROCEDE DE COULEE DE METAL, PROCHE DES COTES FINALES

Publication

EP 1077782 B1 20011128 (DE)

Application

EP 99919121 A 19990319

Priority

- DE 9900891 W 19990319
- DE 19823440 A 19980519

Abstract (en)

[origin: US6363997B1] A method and a device for the casting of rectangular billets from metal, in particular from steel, close to final dimensions, and for the subsequent inline rolling out of the billet, with a material supply vessel, via the outlet nozzle of which the liquid metal is deposited onto the upper strand of a conveyor belt, on which it solidifies and is transferred to a roll stand for forming, characterized by the following steps:a) before the start of castingaa) the point at which the liquid metal is deposited onto the conveyor belt is predetermined approximately,ab) the conveying speed of the conveyor belt is set as a function of the desired rolling thickness and rolling speed of the roll stand,b) during castingba) the position of thorough solidification of the metal billet located on the conveyor belt is detected,bb) the temperature of the rolling stock is detected in the region of the roll stand, andbc) the position of thorough solidification and the temperature of the rolling stock are used as control variables for the current position of the point at which the liquid metal leaving the material supply vessel is deposited onto the conveyor belt.

IPC 1-7

B22D 11/06

IPC 8 full level

B22D 11/06 (2006.01); **B22D 11/12** (2006.01); **B22D 11/16** (2006.01); **B22D 11/20** (2006.01)

CPC (source: EP KR US)

B22D 11/06 (2013.01 - KR); **B22D 11/0631** (2013.01 - EP US)

Cited by

WO2009065517A1; WO2006063847A1; TWI381893B

Designated contracting state (EPC)

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

DOCDB simple family (publication)

US 6363997 B1 20020402; AT E209544 T1 20011215; AU 3700799 A 19991206; AU 754397 B2 20021114; BR 9911053 A 20010206; CA 2332914 A1 19991125; CA 2332914 C 20061114; CN 1206057 C 20050615; CN 1301203 A 20010627; CZ 20004273 A3 20010711; CZ 298804 B6 20080206; DE 19823440 C1 19991209; DE 59900475 D1 20020110; EP 1077782 A1 20010228; EP 1077782 B1 20011128; ES 2164490 T3 20020216; HU 222717 B1 20030929; HU P0101807 A2 20010928; HU P0101807 A3 20011029; JP 2002515339 A 20020528; JP 4703848 B2 20110615; KR 100589083 B1 20060613; KR 20010043684 A 20010525; MX PA00011323 A 20030519; PL 189011 B1 20050630; PL 344247 A1 20011022; RU 2213642 C2 20031010; SK 17542000 A3 20010611; SK 285609 B6 20070405; TR 200003387 T2 20010321; UA 63011 C2 20040115; WO 9959750 A1 19991125; ZA 200006698 B 20020218

DOCDB simple family (application)

US 70080401 A 20010111; AT 99919121 T 19990319; AU 3700799 A 19990319; BR 9911053 A 19990319; CA 2332914 A 19990319; CN 99806350 A 19990319; CZ 20004273 A 19990319; DE 19823440 A 19980519; DE 59900475 T 19990319; DE 9900891 W 19990319; EP 99919121 A 19990319; ES 99919121 T 19990319; HU P0101807 A 19990319; JP 2000549403 A 19990319; KR 20007012895 A 20001117; MX PA00011323 A 19990319; PL 34424799 A 19990319; RU 2000131680 A 19990319; SK 17542000 A 19990319; TR 200003387 T 19990319; UA 2000116509 A 19990319; ZA 200006698 A 20001116