Title (en)

Process for feeding molten metal in a continuous casting machine

Title (de)

Verfahren zur Schmelzenführung in einer Stranggiessmaschine

Title (fr)

Procédé d'alimentation de métal liquide d'une machine de coulée continue

Publication

EP 1066898 B1 20050309 (DE)

Application

EP 00114274 A 20000704

Priority

DE 19930909 A 19990706

Abstract (en)

[origin: EP1066898A1] Initial temperature of melt in the distributor (302) is measured at a first casting speed. The first heat loss rate is measured from melt in the distributor, and also during its residence time between distributor and the casting level in the casting mold. An equivalent liquidus temperature T'liq + 0 is determined as the limiting temperature which will be reached, taking into account the initial liquidus temperature Tliq of melt already in the casting region of the mold, and the given casting speed. Isotherms of the equivalent liquidus temperature T'liq + x are determined as a function of superheating temperatures x, with x greater than zero, the isotherms each relating melting temperatures in the distributor and casting speeds. The initial continuous casting speed is matched to a desired continuous casting speed inside a given window of isotherms, with the lowest boundary lying above the equivalent liquidus temperature curve T'liq + 0. An Independent claim is included for the corresponding casting system.

IPC 1-7

B22D 11/20

IPC 8 full level

B22D 11/051 (2006.01); **B22D 11/10** (2006.01); **B22D 11/16** (2006.01); **B22D 11/20** (2006.01)

CPC (source: EP KR US)

B22D 11/16 (2013.01 - KR); **B22D 11/20** (2013.01 - EP US)

Cited by

CN104226951A; FR2864844A1

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)

EP 1066898 A1 20010110; **EP 1066898 B1 20050309**; AT E290446 T1 20050315; CN 1258415 C 20060607; CN 1280041 A 20010117; DE 50009703 D1 20050414; ES 2238224 T3 20050901; JP 2001038456 A 20010213; KR 100720429 B1 20070521; KR 20010015196 A 20010226; TW 452515 B 20010901; US 6539273 B1 20030325

DOCDB simple family (application)

EP 00114274 A 20000704; AT 00114274 T 20000704; CN 00124236 A 20000706; DE 50009703 T 20000704; ES 00114274 T 20000704; JP 2000205380 A 20000706; KR 20000038484 A 20000706; TW 89113281 A 20000803; US 61041200 A 20000705