

Title (en)

Pouring tube structure and pouring method for uphill casting

Title (de)

Ausgussdüsenstruktur und Verfahren zum steigenden Gießen

Title (fr)

Structure d'une busette de coulee et methode de coulee en contre gravite

Publication

EP 1759789 B1 20080326 (EN)

Application

EP 06018010 A 20060829

Priority

- JP 2005248718 A 20050830
- JP 2006014033 A 20060123

Abstract (en)

[origin: EP1759789A1] In an uphill casting process of molten metal, the present invention makes it possible to stabilize a molten metal surface in a mould during pouring without lowering a pouring rate, so as to suppress oxidization of the molten metal due to formation of "open eye" and reduce an amount of slags and nonmetallic inclusions to be dispersed into the steel and spread over the molten metal as substances causing deterioration in quality of metal ingots, to achieve enhanced quality of metal ingots. A pouring tube structure for use in an uphill casting process designed to spout molten metal into a mould 5 from an inlet port 6 located in a lower portion of the mould 5, which comprises a pouring tube internally defining a flow channel for molten metal to provide fluid transport between a molten metal transfer vessel and said inlet port and feed molten metal from said molten metal transfer vessel to said mould and a single or a plurality of swirling-flow generation means provided in said pouring tube and adapted to generate a swirling flow in said molten metal.

IPC 8 full level

B22D 41/50 (2006.01)

CPC (source: EP)

B22D 41/507 (2013.01)

Cited by

CN111421118A; CN102794408A

Designated contracting state (EPC)

DE SE

DOCDB simple family (publication)

EP 1759789 A1 20070307; EP 1759789 B1 20080326; DE 602006000811 D1 20080508; DE 602006000811 T2 20080703

DOCDB simple family (application)

EP 06018010 A 20060829; DE 602006000811 T 20060829