

Title (en)

Immersion nozzle for introducing liquid metal into a continuous casting mould

Title (de)

Eintauchausguss zum Einbringen von Metallschmelze in einer Stranggusskokille

Title (fr)

Busette pour l'introduction d'un métal liquide dans une lingotière de coulée continue des métaux

Publication

EP 0765702 B1 19990526 (FR)

Application

EP 96401849 A 19960829

Priority

FR 9511375 A 19950928

Abstract (en)

[origin: EP0765702A1] A nozzle (1) for introducing liquid metal into a continuous casting mould of the type incorporates a primary tubular part (2), one end of which is destined to be connected to a vessel containing the liquid metal and the other end (4) of which emerges into a secondary hollow part (6), of which at least a part (29) of the inner space (7) is oriented essentially perpendicular to the primary tubular part (2). The part (29) of the inner space (7) incorporates at each of its ends at least one orifice (10,11) destined to open out into the casting space of the mould. Characteristically it incorporates an obstacle placed in the path of the liquid metal inside the primary tubular part (2) or in its prolongation. The obstacle is made up of at least one perforated component designed to deviate the metal from its preferential trajectory inside the nozzle. The obstacle may take the form of a lozenge perforated with a multiplicity of holes or a hollow component, fitted with a bottom part, penetrating into the second part of the nozzle, the hollow component incorporating some openings in its lateral wall.

IPC 1-7

B22D 11/06; B22D 41/50

IPC 8 full level

B22D 11/10 (2006.01); **B22D 11/06** (2006.01); **B22D 41/50** (2006.01)

CPC (source: EP KR US)

B22D 11/0642 (2013.01 - EP US); **B22D 11/10** (2013.01 - KR); **B22D 41/502** (2013.01 - EP US)

Cited by

EP0911096A1; FR2769862A1; FR2818567A1; KR100816457B1; EP0950451A1; FR2777485A1; US6092700A; CN1103255C; US6425505B1; WO20251569A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

EP 0765702 A1 19970402; EP 0765702 B1 19990526; AT E180427 T1 19990615; AU 6443596 A 19970410; AU 702389 B2 19990218; BR 9603908 A 19980609; CA 2186084 A1 19970329; CA 2186084 C 20080129; CN 1064286 C 20010411; CN 1154885 A 19970723; CZ 279996 A3 19970416; CZ 285931 B6 19991117; DE 69602565 D1 19990701; DE 69602565 T2 19991216; DK 0765702 T3 19991206; ES 2132857 T3 19990816; FR 2739313 A1 19970404; FR 2739313 B1 19971031; GR 3030610 T3 19991029; JP 3978794 B2 20070919; JP H09108794 A 19970428; KR 100369257 B1 20030315; KR 970014880 A 19970428; MX 9604288 A 19970830; PL 181356 B1 20010731; PL 316322 A1 19970401; RO 117242 B1 20011228; RU 2163179 C2 20010220; SK 118296 A3 19980114; SK 281773 B6 20010710; TR 199600774 A2 19970422; TW 345508 B 19981121; UA 42764 C2 20011115; US 5733469 A 19980331; ZA 968126 B 19970421

DOCDB simple family (application)

EP 96401849 A 19960829; AT 96401849 T 19960829; AU 6443596 A 19960904; BR 9603908 A 19960926; CA 2186084 A 19960920; CN 96112972 A 19960924; CZ 279996 A 19960924; DE 69602565 T 19960829; DK 96401849 T 19960829; ES 96401849 T 19960829; FR 9511375 A 19950928; GR 990401692 T 19990625; JP 27736896 A 19960927; KR 19960041336 A 19960920; MX 9604288 A 19960924; PL 31632296 A 19960927; RO 9601886 A 19960927; RU 96120071 A 19960926; SK 118296 A 19960916; TR 9600774 A 19960927; TW 85111086 A 19960911; UA 96093708 A 19960926; US 71805096 A 19960913; ZA 968126 A 19960927