

Title (en)

Gate geometry of a continuous casting mould for metal

Title (de)

Trichtergeometrie einer Kokille zum Stranggiessen von Metall

Title (fr)

Moule en forme d'entonnoir pour coulée continue de metal

Publication

EP 0904873 B2 20111026 (DE)

Application

EP 98117587 A 19980916

Priority

DE 19742795 A 19970927

Abstract (en)

[origin: EP0904873A1] Within the funnel region the inner contours of the mold broadside walls have two points defining a straight line along which these contours have at least one concave section (a, a', a) and at least one convex section (b, b', b) in any sequence.

IPC 8 full level

B22D 11/04 (2006.01); **B22C 9/08** (2006.01)

CPC (source: EP KR US)

B22D 11/0406 (2013.01 - EP KR US); **B22D 11/0408** (2013.01 - EP US); **B22D 11/0408** (2013.01 - KR)

Citation (opposition)

Opponent :

- EP 0865849 A1 19980923 - SCHLOEMANN SIEMAG AG [DE]
- WO 9901244 A1 19990114 - MANNESMANN AG [DE], et al

Cited by

US6932147B2; US6975877B1; WO02064286A3

Designated contracting state (EPC)

AT BE DE ES FR GB IT LU NL

DOCDB simple family (publication)

EP 0904873 A1 19990331; **EP 0904873 B1 20020703**; **EP 0904873 B2 20111026**; AT E219976 T1 20020715; CN 1106238 C 20030423; CN 1220195 A 19990623; DE 19742795 A1 19990401; DE 59804640 D1 20020808; ES 2183267 T3 20030316; ES 2183267 T5 20120124; JP 4289702 B2 20090701; JP H11156488 A 19990615; KR 100594624 B1 20060830; KR 19990030178 A 19990426; TW 380064 B 20000121; US 6186220 B1 20010213; ZA 988657 B 19990604

DOCDB simple family (application)

EP 98117587 A 19980916; AT 98117587 T 19980916; CN 98125062 A 19980926; DE 19742795 A 19970927; DE 59804640 T 19980916; ES 98117587 T 19980916; JP 27174698 A 19980925; KR 19980040129 A 19980926; TW 87120047 A 19981203; US 15490898 A 19980917; ZA 989657 A 19980922