

Title (en)
METHOD FOR COOLING A METALLIC CONTINUOUS CASTING PRODUCT

Publication
EP 0342082 B1 19930721 (FR)

Application
EP 89401150 A 19890421

Priority
FR 8806743 A 19880513

Abstract (en)
[origin: EP0342082A1] The method according to the invention is characterised in that an intense cooling of the product in the process of being continuously cast is carried out when the latter is, at its core, in the pasty solidification phase (8), as a result of which the differential thermal contraction between the pasty core and the outer shell which is already completely solidified produces a squeezing effect of the core by the shell (9). To this end, means for cooling the product are arranged on the casting machine in the region of the terminal portion of the metallurgical length. <??>The invention makes it possible to reduce, and even prevent the formation of internal cracks during the cooling of the cast product, which would lead to the presence of segregated areas in the axial region. It is applied advantageously to the casting of steels which are well known to be difficult to cast by continuous casting, such as steels with a wide solidification range, the carbon content of which is from 0.25 to 1.5%. <IMAGE>

IPC 1-7
B22D 11/10; B22D 11/12; B22D 11/124

IPC 8 full level
B22D 11/10 (2006.01); **B22D 11/12** (2006.01); **B22D 11/124** (2006.01)

CPC (source: EP KR US)
B22D 11/124 (2013.01 - EP KR US)

Designated contracting state (EPC)
AT BE CH DE ES GB GR IT LI LU NL SE

DOCDB simple family (publication)
EP 0342082 A1 19891115; EP 0342082 B1 19930721; AT E91656 T1 19930815; AU 3392789 A 19891116; AU 611797 B2 19910620; BR 8902241 A 19900109; CA 1338164 C 19960319; CN 1018803 B 19921028; CN 1038605 A 19900110; CS 287289 A3 19921118; DD 284175 A5 19901107; DE 68907644 D1 19930826; DE 68907644 T2 19931202; ES 2042023 T3 19931201; FR 2631263 A1 19891117; FR 2631263 B1 19900720; JP H0215856 A 19900119; KR 890017020 A 19891214; KR 960004423 B1 19960403; PL 279425 A1 19891227; PT 90543 A 19891130; PT 90543 B 19940531; RU 1819188 C 19930530; UA 15737 A 19970630; US 5063991 A 19911112; ZA 893402 B 19900131

DOCDB simple family (application)
EP 89401150 A 19890421; AT 89401150 T 19890421; AU 3392789 A 19890502; BR 8902241 A 19890512; CA 599585 A 19890512; CN 89103169 A 19890512; CS 287289 A 19890512; DD 32857989 A 19890512; DE 68907644 T 19890421; ES 89401150 T 19890421; FR 8806743 A 19880513; JP 12129389 A 19890515; KR 890006377 A 19890513; PL 27942589 A 19890512; PT 9054389 A 19890512; SU 4614067 A 19890512; UA 4614067 A 19890512; US 56368590 A 19900803; ZA 893402 A 19890509