

Title (en)

METHOD AND DEVICE FOR AUTOMATICALLY FILLING A CONTINUOUS CASTING MOLD

Publication

EP 0296443 A3 19891108 (DE)

Application

EP 88109386 A 19880613

Priority

- DE 3720586 A 19870622
- DE 3738489 A 19871112

Abstract (en)

[origin: EP0296443A2] Method and device for automatically filling a continuous casting mould with molten metal (steel), in which the molten metal (13) is poured into the continuous casting mould (18) in a controlled fashion through a bottom pouring nozzle (14) of a distributing launder (10) or of a tundish, the said nozzle being closable by means of an automatically actuated plug (15). During the filling of the continuous casting mould (18), the plug (15) executes predetermined upward and downward movements (double arrow 45) dependent, in particular, on the liquid level (19) in the continuous casting mould (18), the said movements being effected counter to the action of a force which urges the plug (15) into the closed position. The upward and downward movement of the plug (15) is effected by an actuating member (B) engaging directly on the upper end of the said plug. The force urging the plug (15) into the closed position is obtained either by means of a constant mass (121) or a resilient element (48) which, as the temperature rises, attempts to urge the plug (15) in a correspondingly increasing fashion into the closed position. Closed gas-filled springs (48) are preferably used as the resilient element, while the actuating member (B) is preferably formed by open spring elements (49) which correspond in their design to the closed spring elements (48). <IMAGE>

IPC 1-7

B22D 11/18; **B22D 41/10**

IPC 8 full level

B22D 11/10 (2006.01); **B22D 11/103** (2006.01); **B22D 11/18** (2006.01); **B22D 37/00** (2006.01); **B22D 41/20** (2006.01)

CPC (source: EP KR US)

B22D 11/10 (2013.01 - KR); **B22D 11/187** (2013.01 - EP US); **B22D 41/20** (2013.01 - EP US)

Citation (search report)

- [AD] DE 2406006 B2 19751211
- [AD] DE 2319004 A1 19741031 - BBC BROWN BOVERI & CIE
- [AD] EP 0032442 B1 19840321
- [A] DE 2351816 B2 19770303

Designated contracting state (EPC)

AT BE CH DE ES FR GB IT LI LU NL SE

DOCDB simple family (publication)

EP 0296443 A2 19881228; **EP 0296443 A3 19891108**; IL 86768 A0 19881130; JP S6422458 A 19890125; KR 890000189 A 19890313; US 4905755 A 19900306

DOCDB simple family (application)

EP 88109386 A 19880613; IL 8676888 A 19880616; JP 15246388 A 19880622; KR 880007566 A 19880622; US 21003288 A 19880622