

Title (en)
Liquid cooled continuous casting mold for casting metal strands

Title (de)
Flüssigkeitsgekühlte Kokille zum Stranggiessen von Metallen

Title (fr)
Lingotière à refroidissement liquide pour la coulée continue de métaux

Publication
EP 1398099 B1 20050615 (DE)

Application
EP 03016467 A 20030722

Priority
DE 10237472 A 20020816

Abstract (en)
[origin: EP1398099A1] Liquid-cooled mold comprises mold plates (1) made from copper or copper alloy joined to an adapter plate or water tank by bolts (14) fixed to a base protruding from the coolant side (6) of the mold plate. The bolts protrude into a cooling gap (5) formed between the mold plate and the adapter plate and have a structure fitting the flow direction of the coolant.

IPC 1-7
B22D 11/055

IPC 8 full level
B22D 11/059 (2006.01); **B22D 11/04** (2006.01); **B22D 11/055** (2006.01); **B22D 11/22** (2006.01)

CPC (source: EP KR US)
B22D 11/055 (2013.01 - EP US); **B22D 11/22** (2013.01 - KR)

Cited by
EP1892050A1; ITMI20120153A1; EP1736257A3; DE102006051171A1; EP1795281A3; EP1555073A1; EP1795281A2; US8240357B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1398099 A1 20040317; **EP 1398099 B1 20050615**; AT E297824 T1 20050715; AU 2003227290 A1 20040304; BR 0303097 A 20040824; CA 2437237 A1 20040216; CA 2437237 C 20101123; CN 1481952 A 20040317; DE 10237472 A1 20040226; DE 50300651 D1 20050721; ES 2240894 T3 20051016; JP 2004074283 A 20040311; JP 4288116 B2 20090701; KR 100940552 B1 20100210; KR 20040016427 A 20040221; MX PA03006758 A 20040505; RU 2003125337 A 20050227; RU 2316408 C2 20080210; TW 200403115 A 20040301; TW I292728 B 20080121; US 2004069439 A1 20040415; US 6874564 B2 20050405

DOCDB simple family (application)
EP 03016467 A 20030722; AT 03016467 T 20030722; AU 2003227290 A 20030729; BR 0303097 A 20030815; CA 2437237 A 20030814; CN 03127762 A 20030812; DE 10237472 A 20020816; DE 50300651 T 20030722; ES 03016467 T 20030722; JP 2003286881 A 20030805; KR 20030056688 A 20030816; MX PA03006758 A 20030729; RU 2003125337 A 20030815; TW 92120210 A 20030724; US 64341203 A 20030818