

Title (en)

CONTINUOUS CASTING INGOT MOULD FOR THE VERTICAL CASTING OF METALS

Title (de)

VERTIKAL-STRANGGIESSKOKILLE MIT AUFSATZ

Title (fr)

LINGOTIERE DE COULEE CONTINUE POUR LA COULEE CONTINUE EN CHARGE VERTICALE DES METAUX

Publication

EP 0907439 A1 19990414 (FR)

Application

EP 97919425 A 19970327

Priority

- FR 9700547 W 19970327
- FR 9604305 A 19960405

Abstract (en)

[origin: US6050324A] PCT No. PCT/FR97/00547 Sec. 371 Date Jan. 22, 1999 Sec. 102(e) Date Jan. 22, 1999 PCT Filed Mar. 27, 1997 PCT Pub. No. WO97/37793 PCT Pub. Date Oct. 16, 1997The mold comprises a tubular metal component (4), made of copper or a copper alloy, cooled by water circulation against its external wall and intended to ensure that the cast metal undergoes peripheral solidification on contact with its internal wall, and an uncooled feed head (9) made of a thermally insulating refractory, intended to contain cast metal in the liquid state and sitting on top of the cooled metal component (4) and defining with it a continuous sizing passage for the cast metal. A horizontal metal annulus (16) cooled by internal circulation is added between the feed head (9) and the tubular component (4) and aligned with the internal wall of the latter.

IPC 1-7

B22D 11/04

IPC 8 full level

B22D 11/10 (2006.01); **B22D 11/04** (2006.01); **B22D 11/041** (2006.01); **B22D 11/055** (2006.01)

CPC (source: EP US)

B22D 11/0401 (2013.01 - EP US)

Citation (search report)

See references of WO 9737793A1

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)

US 6050324 A 20000418; AT E194786 T1 20000815; AU 2390897 A 19971029; BR 9708503 A 19990803; CA 2258109 A1 19971016; CA 2258109 C 20040713; DE 69702611 D1 20000824; DE 69702611 T2 20010308; DK 0907439 T3 20001113; EP 0907439 A1 19990414; EP 0907439 B1 20000719; ES 2150241 T3 20001116; FR 2747062 A1 19971010; FR 2747062 B1 19980430; GR 3034474 T3 20001229; JP 2000508242 A 20000704; JP 3727354 B2 20051214; PT 907439 E 20001229; WO 9737793 A1 19971016

DOCDB simple family (application)

US 14700799 A 19990122; AT 97919425 T 19970327; AU 2390897 A 19970327; BR 9708503 A 19970327; CA 2258109 A 19970327; DE 69702611 T 19970327; DK 97919425 T 19970327; EP 97919425 A 19970327; ES 97919425 T 19970327; FR 9604305 A 19960405; FR 9700547 W 19970327; GR 20000402163 T 20000925; JP 53588597 A 19970327; PT 97919425 T 19970327