

Title (en)

SEMI-CONTINUOUS CASTING OF AN INGOT WITH COMPRESSION OF THE METAL DURING SOLIDIFICATION

Title (de)

HALBKONTINUIERLICHES GIessen EINES BLOCKS MIT KOMPRESSION DES METALLS WÄHREND DER ERSTARRUNG

Title (fr)

COULÉE SEMI-CONTINUE D'UN LINGOT AVEC COMPRESSION DU MÉTAL EN COURS DE SOLIDIFICATION

Publication

**EP 3894111 B1 20240410 (FR)**

Application

**EP 19845584 A 20191213**

Priority

- FR 1872880 A 20181213
- FR 2019053056 W 20191213

Abstract (en)

[origin: WO2020120919A1] The invention relates to a method for manufacturing a metal ingot by continuous casting, comprising the following steps: S1: melting the metal, S2: transferring the liquid metal (2) by pouring it into a crucible (12), S3: moving the base plate (14) of the crucible (12), S4: progressive solidification of the liquid metal (2) from the base plate (14) of the crucible (12), and S5: during the step S3 of moving the base plate (14), applying a compression force to the metal (3) which is present between the base plate (14) and the side wall (13), the compression force being applied along a second axis (X2) parallel to the first axis (X1) so as to deform the metal and to obtain an ingot (3) which has a smaller width (L2).

IPC 8 full level

**B22D 11/12** (2006.01); **B22D 11/00** (2006.01); **B22D 11/041** (2006.01); **B22D 11/11** (2006.01); **B22D 11/18** (2006.01); **B22D 21/00** (2006.01);  
**B22D 27/11** (2006.01)

CPC (source: EP US)

**B22D 11/001** (2013.01 - EP US); **B22D 11/041** (2013.01 - EP US); **B22D 11/11** (2013.01 - EP); **B22D 11/12** (2013.01 - EP);  
**B22D 11/1206** (2013.01 - EP US); **B22D 11/126** (2013.01 - US); **B22D 11/181** (2013.01 - EP US); **B22D 21/005** (2013.01 - EP US);  
**B22D 27/11** (2013.01 - EP)

Citation (examination)

JP H0628787 B2 19940420

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**WO 2020120919 A1 20200618**; CN 113272085 A 20210817; CN 113272085 B 20231124; EP 3894111 A1 20211020; EP 3894111 B1 20240410;  
FR 3089833 A1 20200619; FR 3089833 B1 20220506; US 11673186 B2 20230613; US 2022062975 A1 20220303

DOCDB simple family (application)

**FR 2019053056 W 20191213**; CN 201980088440 A 20191213; EP 19845584 A 20191213; FR 1872880 A 20181213;  
US 201917413302 A 20191213