

Title (en)

METHOD FOR PRODUCING IRON METAL CASTINGS

Title (de)

VERFAHREN ZUR HERSTELLUNG VON EISENMETALLGÜSSEN

Title (fr)

PROCÉDÉ DE FABRICATION DE PIÈCES COULÉES EN MÉTAL FERREUX

Publication

EP 3188860 B1 20180704 (DE)

Application

EP 15753958 A 20150826

Priority

- DE 102014217701 A 20140904
- EP 2015069509 W 20150826

Abstract (en)

[origin: WO2016034467A1] The invention relates to a method for producing iron metal castings, wherein an expendable mold (10) having a cavity (12) for holding casting material (54) is inserted into an opened multi-part permanent mold (22, 24) (step 106), the permanent mold is closed (step 106), the cavity (12) is filled with casting material (54), wherein a supporting device (14) partially protruding into the cavity is partially overcast (step 108), the expendable mold (10) is cooled in the permanent mold after the filling (steps 110, 112, 114), the permanent mold is opened during the cooling, after the liquidus temperature has been fallen below at the earliest, and the expendable mold is nondestructively removed from the permanent mold together with the casting (step 116), the expendable mold (10) is further cooled together with the solidified casting while hanging on the supporting device (14), at least until the microstructure formation of the casting is concluded (step 118), the casting is demolded by removing the expendable mold (step 120).

IPC 8 full level

B22D 15/04 (2006.01); **B22C 5/08** (2006.01); **B22C 9/02** (2006.01); **B22C 9/06** (2006.01); **B22C 9/08** (2006.01); **B22C 21/00** (2006.01); **B22C 21/14** (2006.01); **B22D 18/00** (2006.01); **B22D 19/04** (2006.01); **B22D 27/04** (2006.01); **B22D 29/04** (2006.01); **B22D 30/00** (2006.01); **B22D 33/00** (2006.01)

CPC (source: EP KR US)

B22C 5/085 (2013.01 - KR); **B22C 9/02** (2013.01 - EP KR US); **B22C 9/065** (2013.01 - EP KR US); **B22C 9/088** (2013.01 - EP KR US); **B22C 21/00** (2013.01 - EP US); **B22C 21/14** (2013.01 - EP KR US); **B22D 15/04** (2013.01 - EP KR US); **B22D 18/00** (2013.01 - EP KR US); **B22D 18/04** (2013.01 - US); **B22D 19/04** (2013.01 - EP KR US); **B22D 27/04** (2013.01 - EP KR US); **B22D 29/001** (2013.01 - US); **B22D 29/04** (2013.01 - EP KR US); **B22D 30/00** (2013.01 - EP US); **B22D 33/005** (2013.01 - KR); **B22C 5/085** (2013.01 - EP US); **B22D 33/005** (2013.01 - EP US)

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)

DE 102014217701 A1 20160310; BR 112017004311 A2 20171205; CN 106715003 A 20170524; CN 106715003 B 20200303; EP 3188860 A1 20170712; EP 3188860 B1 20180704; ES 2687103 T3 20181023; KR 102139349 B1 20200729; KR 20170049566 A 20170510; MX 2017002802 A 20180112; MX 362145 B 20181224; US 10086430 B2 20181002; US 2017355015 A1 20171214; WO 2016034467 A1 20160310

DOCDB simple family (application)

DE 102014217701 A 20140904; BR 112017004311 A 20150826; CN 201580047050 A 20150826; EP 15753958 A 20150826; EP 2015069509 W 20150826; ES 15753958 T 20150826; KR 20177009073 A 20150826; MX 2017002802 A 20150826; US 201515508248 A 20150826