

Title (en)
CASTING EQUIPMENT AND CASTING METHOD USING SAME

Title (de)
GIESSVORRICHTUNG UND GIESSVERFAHREN DAMIT

Title (fr)
ÉQUIPEMENT DE COULAGE ET PROCÉDÉ DE COULAGE UTILISANT CELUI-CI

Publication
EP 2974810 A4 20160928 (EN)

Application
EP 14762821 A 20140314

Priority
• KR 20130027910 A 20130315
• KR 2014002153 W 20140314

Abstract (en)
[origin: EP2974810A1] The present invention relates to casting equipment for producing a casting with a large cross-section for a very thick steel material and a casting method using the same, and the casting equipment includes; a casting part with a passage for a molten steel for casting the molten steel into a casting; a support part arranged separately from the casting part for receiving and supporting the casting in at least one of the sides of the casting; and a solidifying part arranged outside the casting provided with a first quality control device for solidifying the casting, whereby the casting method includes the steps of: preparing a molten steel for casting; casting the molten steel in the casting part with the passage opened or closed into a casting; conveying the casting to the solidifying part; and conveying the solidified casting to a subsequent process so as to improve the quality of the casting, thus increasing substantially the yield rate of castings. In addition, the molten steel is continuously stirred through the quality control device and a solidification inducement device from the start of casting to the end of solidifying the casting so as to enhance the equiaxed surface ratio of the casting, and decrease segregation/porosity and the internal defects such as a pipe generated at an end of casting. Also, when producing a casting with a large cross-section for a very thick steel material, the casting part can produce another casting continuously while the previous casting is solidified in the solidifying part, thus saving the time consumend for solidifying the casting for a very thick stell material by means of the continuous solidifying part. This prevents the casting process from being stopped, thereby enhancing the productivity of a casting and the efficiency of the casting equipment.

IPC 8 full level
B22D 7/00 (2006.01); **B22D 9/00** (2006.01); **B22D 11/041** (2006.01); **B22D 11/115** (2006.01); **B22D 11/12** (2006.01); **B22D 11/128** (2006.01); **B22D 11/14** (2006.01)

CPC (source: EP KR US)
B22D 7/00 (2013.01 - EP US); **B22D 7/06** (2013.01 - KR US); **B22D 9/003** (2013.01 - EP US); **B22D 11/041** (2013.01 - EP US); **B22D 11/10** (2013.01 - KR); **B22D 11/115** (2013.01 - EP US); **B22D 11/12** (2013.01 - KR); **B22D 11/1213** (2013.01 - EP US); **B22D 11/122** (2013.01 - EP US); **B22D 11/124** (2013.01 - US); **B22D 11/128** (2013.01 - EP US); **B22D 11/141** (2013.01 - EP US); **B22D 11/20** (2013.01 - KR)

Citation (search report)
• [A] KR 20110074153 A 20110630 - POSCO [KR]
• [A] KR 20100085748 A 20100729 - POSCO [KR], et al
• See references of WO 2014142597A1

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WO2017137094A1

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)
EP 2974810 A1 20160120; EP 2974810 A4 20160928; EP 2974810 B1 20180725; BR 112015020565 A2 20170718; BR 112015020565 B1 20200204; CN 105026073 A 20151104; CN 105026073 B 20180223; ES 2693560 T3 20181212; JP 2016503730 A 20160208; JP 6055114 B2 20161227; KR 101511723 B1 20150413; KR 20140113040 A 20140924; TR 201815354 T4 20181121; US 2016023269 A1 20160128; WO 2014142597 A1 20140918

DOCDB simple family (application)
EP 14762821 A 20140314; BR 112015020565 A 20140314; CN 201480010997 A 20140314; ES 14762821 T 20140314; JP 2015553667 A 20140314; KR 20130027910 A 20130315; KR 2014002153 W 20140314; TR 201815354 T 20140314; US 201414776797 A 20140314