Title (en)

RAW PRESSURE DIE CASTINGS IN NON-FERROUS ALLOYS AND THE METHOD OF PRODUCING RAW PRESSURE DIE CASTINGS IN NON-FERROUS ALLOYS

Title (de)

ROHDRUCKGUSS IN NICHTEISENLEGIERUNGEN UND VERFAHREN ZUR HERSTELLUNG EINES ROHDRUCKGUSSES IN NICHTEISENLEGIERUNGEN

Title (fr)

PIÈCES COULÉES SOUS PRESSION BRUTES DANS DES ALLIAGES NON FERREUX ET PROCÉDÉ DE PRODUCTION DE PIÈCES COULÉES SOUS PRESSION BRUTES DANS DES ALLIAGES NON FERREUX

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Abstract (en)

A raw pressure casting in non-ferrous alloys containing material allowances as structural elements has, according to the invention, at least one excess overflow designed to evacuate gases and impurities from the mould without connecting it with the atmosphere. The excess overflow has a form of a flat-wall membrane (2) fitted inside a casting sleeve constituting the central hole (3) and/or a peripheral overflow (4) permanently fixed to the wall of the central hole (3). The method of producing the raw pressure casting in non-ferrous alloys wherein material allowances are applied is, according to the invention, characterized in that at least one material allowance is applied in a form of an excess overflow designed to evacuate gases and impurities from the mould without connecting it with the atmosphere.

IPC 8 full level

B22D 17/22 (2006.01); **B23P 9/00** (2006.01)

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Citation (search report)

- [XA] US 5782140 A 19980721 - KOYAMA TOORU [JP], et al
- [A] JP 2005288549 A 20051020 - MITSUBISHI ELECTRIC CORP
- [A] JP 2004291063 A 20041021 - FUJITSU LTD
- [A] DE 102007062436 A1 20090702 - UNIV HANNOVER [DE]
- [A] EP 1510845 A1 20050302 - HELLA KGAA HUECK & CO [DE]
- [XA] UNKNOWN: "Casting Simulation Solutions ProCast/QuikCast", INTERNET CITATION, 1 January 2007 (2007-01-01), pages 1 - 16, XP002585818, Retrieved from the Internet <URL:<www.esi-group.com/products/casting/quikcast/benefits/files/Brochure_Casting-2007.pdf> [retrieved on 20100607]
- [A] LIOU & R A MILLER S Y: "Design for die casting", INTERNATIONAL JOURNAL OF COMPUTER INTEGRATED MANUFACTURING, TAYLOR AND FRANCIS, BASINGSTOKE, GB, vol. 4, no. 2, 1 January 1991 (1991-01-01), pages 83 - 96, XP009184421, ISSN: 0951-192X, DOI: 10.1080/09511929108944483
- [A] CHANG-SEOG KANG JAE-IK CHO CHANG- YEOL JEONG SE- WEON CHOI YOUNG-CHAN KIM ET AL: "Thin-Wall Aluminum Die-Casting Technology for Development of Notebook Computer Housing", ?? ? ??, 1 January 2008 (2008-01-01), pages 65 - 69, XP055172325, Retrieved from the Internet <URL:http://lib.cqvip.com/qk/84252X/20081/27284700.html>
- [A] ZHAO H D ET AL: "Simulation of mold filling and prediction of gas entrapment on practical high pressure die castings", TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA, NONFERROUS METALS SOCIETY OF CHINA, CN, vol. 20, no. 11, 1 November 2010 (2010-11-01), pages 2064 - 2070, XP027555257, ISSN: 1003-6326, [retrieved on 20101101]
- [A] JING CHEN ET AL: "Analysis on metal allowance of the auto panel die casting blank in the rough machining", CONSUMER ELECTRONICS, COMMUNICATIONS AND NETWORKS (CECNET), 2011 INTERNATIONAL CONFERENCE ON, IEEE, 16 April 2011 (2011-04-16), pages 1071 - 1074, XP031867999, ISBN: 978-1-61284-458-9, DOI: 10.1109/CECNET.2011.5769118

Cited by

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