Title (en)

Method for producing a cylinder crankcase and casting assembly for a cylinder crankcase

Title (de

Verfahren zum Herstellen eines Zylinderkurbelgehäuses und Gießformanordnung für ein Zylinderkurbelgehäuse

Title (fr)

Procédé de fabrication d'un bloc moteur et agencement de coulage pour un bloc moteur

Publication

EP 2727668 B1 20160831 (DE)

Application

EP 13190037 A 20131024

Priority

DE 102012110592 A 20121106

Abstract (en)

[origin: EP2727668A1] Manufacturing cylinder crankcase, comprises (a) arranging cylinder cores (5) for forming cylinder recesses, and at least one water jacket core (10) forming cooling channels of cylinder crankcase, in a casting mold (3), before filling molten metal, (b) fixing separately produced bridge cores (20) at inner side of the water jacket core for forming additional coolant channels, and (c) enclosing the water jacket core during subsequent casting of the molten metal. The bridge cores are provided with an at least partially embedded metal carrier for their stabilization against inflowing molten metal. Manufacturing cylinder crankcase, comprises (a) arranging cylinder cores (5) for forming cylinder recesses, and at least one water jacket core (10) forming cooling channels of cylinder crankcase, in a casting mold (3) for molding outer side of the cylinder crankcase, before filling molten metal, (b) fixing separately produced bridge cores (20) at inner side of the water jacket core for forming additional coolant channels arranged between the adjacent cylinder recesses, and (c) enclosing the water jacket core during subsequent casting of the molten metal. The bridge cores are provided with an at least partially embedded metal carrier for their stabilization against inflowing molten metal. An independent claim is also included for a casting mold arrangement (1) for casting the cylinder crankcase, comprising the casting mold which forms the outer side of the cylinder crankcase, and comprises the cylinder cores, and water jacket core forming the cooling channels of the cylinder crankcase, where the separately produced bridge cores are attached to the inner side of the water jacket core for forming the coolant channels arranged between the adjacent cylinder recesses.

IPC 8 full level

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CPC (source: EP)

B22C 9/106 (2013.01); B22C 21/14 (2013.01); B22D 19/0009 (2013.01)

Cited by

CN114454308A; CN104028700A; CN107931540A; CN108425761A; CN107363227A; CN111957900A; AT525313A1; AT525313B1; WO2016005806A1; US10850321B2

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