Title (en)
Cooling agent jacket core and method for manufacturing a cylinder crankcase with narrow web thickness

Title (de)
Kühlmittelmantelkern sowie Verfahren zur Herstellung eines Zylinderkurbelgehäuses mit schmaler Stegbreite

Title (fr)
Noyau à chemise de refroidissement et procédé de fabrication d'un carter de vilebrequin à faible nervure

Publication
EP 2772325 A2 20140903 (DE)

Application
EP 14151922 A 20140121

Priority
DE 102013101942 A 20130227

Abstract (en)
Coolant jacket core (16) for producing a cylinder crank housing (10) with a narrow ridge width, comprises at least an integral base core (20), which comprises at least two adjacently arranged core body in hollow cylindrical section form, and a bar core (18), which interconnects the opposite radial ends of each core body in the cutting plane. Each of the two adjacently arranged core body exhibits a common axially extending cutting plane, which forms a connection surface between radial ends of the adjacent core body. The bar core comprises many axially superimposed removable single bar cores. Coolant jacket core (16) for producing a cylinder crank housing (10) with a narrow ridge width, comprises at least an integral base core (20), which comprises at least two adjacently arranged core body in hollow cylindrical section form, and a bar core (18), which interconnects the opposite radial ends of each core body in the cutting plane. Each of the two adjacently arranged core body exhibits a common axially extending cutting plane, which forms a connection surface between radial ends of the adjacent core body. The bar core comprises many axially superimposed removable single bar cores. The single bar cores are attached to the base core at the opposite radial ends of the core body arranged in the cutting plane. An independent claim is also included for producing the coolant jacket core for cylinder crank housing, comprising firing the base core, producing many single bar cores separately, and attaching single bar cores in the base core in an axially superimposed manner in the cutting plane between the two adjacent hollow cylindrical section shaped core body of the base core at the opposite radial ends of the core body.

Abstract (de)
Es sind Kühlmittelmantelkerne (16) zur Herstellung eines Zylinderkurbelgehäuses (10) mit schmaler Stegbreite mit mindestens einem einteiligen Grundkern (20), der mindestens zwei nebeneinander angeordneten im Wesentlichen hohlzylinderschnittförmige Kernkörper (22) aufweist, wobei jeweils die beiden nebeneinander angeordneten Kernkörper (22) eine gemeinsame axial verlaufende Schnittebene (24) aufweisen, die eine Verbindungsfläche (25) zwischen radialen Enden (26) der nebeneinander liegenden Kernkörper (22) bildet und einem Steckern (18), der die gegenüberliegenden radialen Enden (26) jedes Kernkörpers (22) in der Schnittebene (24) miteinander verbindet, bekannt. Um eine Kühlung des Zylinders über seine gesamte Höhe und seinen gesamten Umfang sicherzustellen wird vorgeschlagen, dass der Stegkern (18) mehrere axial übereinander angeordnete entfernbare Einzelstegkerne (30) aufweist, die an den in der Schnittebene (24) angeordneten gegenüberliegenden radialen Enden (26) der Kernkörper (22) am Grundkern (20) befestigt sind.

IPC 8 full level
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CPC (source: EP)
B22C 9/10 (2013.01); **B22C 9/103** (2013.01); **B22C 9/105** (2013.01); **B22C 9/108** (2013.01); **F02F 1/14** (2013.01)

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