

Title (en)

CYLINDER HEAD WITH INSERTS IN THE REGION OF THE CYLINDER BOLT BORES

Publication

EP 0199311 A3 19871209 (DE)

Application

EP 86105411 A 19860418

Priority

DE 3514121 A 19850419

Abstract (en)

[origin: EP0199311A2] 1. A method of casting-in inserts into a cylinder head (1, 1', 1"), in which holes (5, 5', 5") each serving to accommodate a respective cylinder head cap screw (4) are to be worked into the cylinder head (1, 1', 1") and into the inserts, in which each hole is provided with its respective insert, in which each insert is located at the respective hole's end facing the cap of the screw to be accommodated therein, is arranged substantially coaxially with the hole's axis, is made of a material different from that of the cylinder head (1, 1', 1"), and in which the cylinder head (1, 1', 1"), when being cast, will be cast around at least a part of each insert, characterized in that holding devices, one for each insert and securing the latter in a moulding box, extend along the direction of the respective holes (5, 5', 5") to be bored subsequently, and in that at least a section of each holding device has a diameter smaller than that of the respective hole so that, when the cylinder head is machined thereafter, each device will completely be bored out.

IPC 1-7

F02F 1/30; **F02F 1/04**; **B22D 19/00**

IPC 8 full level

B22D 19/00 (2006.01); **F02F 1/04** (2006.01); **F02F 1/24** (2006.01); **F02F 1/30** (2006.01)

CPC (source: EP)

F02F 1/24 (2013.01); **F02F 2001/248** (2013.01)

Citation (search report)

- [Y] GB 942169 A 19631120 - MOTOREN WERKE MANNHEIM AG
- [Y] US 4100669 A 19780718 - PEMPER STEVEN J
- [A] DE 940075 C 19560308 - KLOECKNER HUMBOLDT DEUTZ AG

Cited by

EP0939215A3; FR2691656A1

Designated contracting state (EPC)

AT CH DE FR IT LI

DOCDB simple family (publication)

EP 0199311 A2 19861029; **EP 0199311 A3 19871209**; **EP 0199311 B1 19900822**; AT E55808 T1 19900915; DE 3514121 A1 19861023; DE 3673546 D1 19900927

DOCDB simple family (application)

EP 86105411 A 19860418; AT 86105411 T 19860418; DE 3514121 A 19850419; DE 3673546 T 19860418