

Title (en)

CAST ENGINE BLOCK FOR A LIQUID-COOLED INTERNAL-COMBUSTION ENGINE WITH CYLINDER BANKS ARRANGED IN A V-CONFIGURATION

Publication

EP 0262597 A3 19891220 (DE)

Application

EP 87114005 A 19870925

Priority

DE 3633261 A 19860930

Abstract (en)

[origin: US4777912A] In a cast engine block for liquid-cooled internal combustion engines with V-shaped cylinder arrangement, the cylinders are arranged in cooling medium spaces delimited by cylinder blocks. A spiral housing 10 of a cooling medium pump 11 having a radial rotor is partially integrated into one of the end walls of the engine block within the area of a cylinder block. A gear box adapted to be fastened at the end wall includes a closure wall corresponding to the end walls surface as well as side walls for the sealing abutment of a separate cover. The other part of the spiral housing inclusive a pressure connection is integrated into the closure wall. This spiral housing includes a collar for the plug-in arrangement of the cooling medium pump. The side wall of the gear box is arranged about the collar receiving the cooling medium pump for an arrangement of the cover separate at the gear box from the cooling medium pump. The pressure connection integrated into the closure wall of the gear box adjoins at a cooling medium line arranged at the tip of the V-space delimited by aperture-free side walls of the cylinder blocks; the cooling medium line is in operative connection with channels for the cooling medium inlet to the cooling medium spaces of the cylinder blocks arranged at the other end of the engine block.

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F02B 75/22; **F02F 7/00**

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

- [AD] DE 2553291 B2 19790419
- [A] US 4425881 A 19840117 - LYNDHURST FRANCIS R [US]
- [A] DE 814685 C 19510924 - SCHMID CHRISTIAN DR-ING

Cited by

DE102010054084A1; DE19851232A1; DE19956358A1; EP0505346B1; DE102010054084B4

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