

Title (en)
Fluid cooled reciprocating-piston internal combustion engine

Title (de)
Durch Flüssigkeit gekühlte Hubkolbenbrennkraftmaschine

Title (fr)
Moteur à combustion interne à piston alternatif refroidi par liquide

Publication
EP 1253303 A3 20030326 (DE)

Application
EP 02007810 A 20020406

Priority
DE 10119969 A 20010424

Abstract (en)
[origin: EP1253303A2] The engine has a cylinder head (12) and a cylinder block (14) with their coolant cavities connected to a coolant circuit (16) with a pump (18), radiator (20) and fan (24). The coolant cavities of the cylinder head and the cylinder block are separated from each other and are connected by separate outlet lines (38, 40) to a common return flow line (26).

IPC 1-7
F01P 3/02; **F01P 7/16**

IPC 8 full level
F01P 3/02 (2006.01); **F01P 7/16** (2006.01); **F01P 7/14** (2006.01)

CPC (source: EP)
F01P 3/02 (2013.01); **F01P 7/165** (2013.01); **F01P 2003/021** (2013.01); **F01P 2003/024** (2013.01); **F01P 2003/027** (2013.01); **F01P 2007/146** (2013.01); **F01P 2060/08** (2013.01)

Citation (search report)

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- [A] DE 908930 C 19540412 - MASCHF AUGSBURG NUERNBERG AG
- [A] US 4369738 A 19830125 - HIRAYAMA TSUTOMU [JP]
- [X] PATENT ABSTRACTS OF JAPAN vol. 007, no. 024 (M - 189) 29 January 1983 (1983-01-29)
- [A] PATENT ABSTRACTS OF JAPAN vol. 010, no. 375 (M - 545) 13 December 1986 (1986-12-13)

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