

Title (en)
Four-cycle engine

Title (de)
Viertakt-Brennkraftmaschine

Title (fr)
Moteur à combustion interne à quatre-temps

Publication
EP 0811756 A2 19971210 (EN)

Application
EP 97114938 A 19941028

Priority
• EP 94117108 A 19941028
• JP 29411893 A 19931029

Abstract (en)
The present invention relates to a four-cycle engine, specifically to a cooling arrangement thereof, said engine comprising a cylinder block and a cylinder head, a chain drive means for driving at least one camshaft from a primary drive shaft and a chain cover extending along a side of the engine wherein in said chain cover forms part of a case for the water pump which, therefore, can be integrated smoothly into the engine allowing to drive the water pump in common to the other auxiliary equipment and to avoid hoses or the like for cooling other components of the engine.
<IMAGE>

IPC 1-7
F01P 5/10; **F02B 67/06**; **F01P 11/04**; **F02F 7/00**

IPC 8 full level
F01P 5/10 (2006.01); **F01P 11/04** (2006.01); **F02B 67/06** (2006.01); **F01M 5/00** (2006.01); **F01M 11/02** (2006.01); **F01M 11/03** (2006.01); **F02B 75/02** (2006.01)

CPC (source: EP)
F01P 5/10 (2013.01); **F01P 11/04** (2013.01); **F02B 67/06** (2013.01); **F01M 5/002** (2013.01); **F01M 11/02** (2013.01); **F01M 11/03** (2013.01); **F01M 2001/1014** (2013.01); **F01P 2060/04** (2013.01); **F02B 2075/027** (2013.01); **F02B 2275/06** (2013.01)

Cited by
EP1081355A3; DE102007004419A1; DE102007004419B4; US6435157B1

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 0651141 A1 19950503; **EP 0651141 B1 19980729**; DE 69412031 D1 19980903; DE 69412031 T2 19981203; DE 69427877 D1 20010906; DE 69427877 T2 20011115; EP 0811756 A2 19971210; EP 0811756 A3 19980318; EP 0811756 B1 20010801

DOCDB simple family (application)
EP 94117108 A 19941028; DE 69412031 T 19941028; DE 69427877 T 19941028; EP 97114938 A 19941028