

Title (en)
Water-cooled type engine

Title (de)
Wassergekühlte Brennkraftmaschine

Title (fr)
Moteur à combustion interne refroidi par eau

Publication
EP 1507076 B1 20120328 (EN)

Application
EP 04103578 A 20040726

Priority
JP 2003293723 A 20030815

Abstract (en)
[origin: EP1507076A2] In a water-cooled engine, to enable a reduction in the size of the engine at or around a cylinder head and to ensure that a cooling water lead-out pipe portion for leading out cooling water from a cooling jacket can be disposed in the cylinder head, while obviating the interference with a valve-operating chamber and securing maintainability of a spark plug. Valve-operating chamber forming walls 33a, 34a are provided with a recessed portion 158 at a portion thereof corresponding to the other end portion of a camshaft 141 whose one end portion fronts on a chain chamber 151, a spark plug 159 with its rear end portion disposed at the recessed portion 158 is attached to a cylinder head 33 in an inclined state so as to be spaced farther from the chain chamber 151 as one goes away from a combustion chamber 117, and a cooling water lead-out pipe portion 161 disposed on the outer side of the valve-operating chamber forming walls 33a, 34a and deviated from the recessed portion 158 toward the side of either intake valves or exhaust valves is provided in the cylinder head 33 so as to extend substantially in parallel to the cylinder axis C.

IPC 8 full level
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CPC (source: EP)
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Cited by
US8539929B2; US8939115B2

Designated contracting state (EPC)
ES FR IT

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EP 1507076 A2 20050216; **EP 1507076 A3 20091223**; **EP 1507076 B1 20120328**; ES 2384971 T3 20120716; JP 2005061338 A 20050310; JP 4244307 B2 20090325

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