

Title (en)
Cooling water pump module

Title (de)
Kühlwasserpumpenmodul

Title (fr)
Module de pompe de refroidissement à eau

Publication
EP 1443187 B1 20070207 (DE)

Application
EP 04001768 A 20040128

Priority
DE 10303102 A 20030128

Abstract (en)
[origin: EP1443187A1] The engine (1) has a crankcase with a crankshaft driving a cooling water pump module (14), which is mounted on the front of the crankcase and has at least one integrated cooling water channel, and a generator via a belt. The cooling water pump module is arranged at a region off transition from the front (15) of the engine to a side wall (16) and the channel has a flow connection to an oil cooler module (19).

IPC 8 full level
F01P 5/10 (2006.01); **F01M 5/00** (2006.01); **F01M 11/03** (2006.01); **F01P 5/12** (2006.01); **F01P 7/16** (2006.01); **F01P 11/02** (2006.01)

CPC (source: EP)
F01M 5/002 (2013.01); **F01P 5/10** (2013.01); **F01M 11/03** (2013.01); **F01M 2001/1014** (2013.01); **F01M 2011/033** (2013.01); **F01P 5/12** (2013.01); **F01P 7/16** (2013.01); **F01P 11/029** (2013.01); **F01P 2050/30** (2013.01); **F01P 2060/04** (2013.01); **F01P 2070/00** (2013.01)

Cited by
DE102012023004A1; EP1953377A3

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1443187 A1 20040804; EP 1443187 B1 20070207; AT E353395 T1 20070215; DE 10303102 A1 20040729; DE 502004002841 D1 20070322

DOCDB simple family (application)
EP 04001768 A 20040128; AT 04001768 T 20040128; DE 10303102 A 20030128; DE 502004002841 T 20040128