

Title (en)

Coolant pump with adjustable capacity

Title (de)

Kühlmittelpumpe mit verstellbarem Fördervolumen

Title (fr)

Pompe à liquide de refroidissement à capacité variable

Publication

EP 2489881 A3 20130403 (DE)

Application

EP 12155665 A 20120215

Priority

DE 102011004172 A 20110215

Abstract (en)

[origin: CN102635556A] A coolant pump for delivering a coolant in a coolant circuit of a combustion engine, including: a housing; a drive shaft, rotatably mounted by the housing and rotationally driven by the combustion engine; a radial feed wheel, rotationally driven by the drive shaft, for delivering coolant from a radially internal inflow region into a radially more external outflow region; a setting structure, adjustable into different positions relative to the housing by control fluid, for adjusting a flow geometry which influences the delivery volume of the pump at a given rotational speed; a control valve for setting a pressure or volume flow of the control fluid which determines the position of the setting structure; and a servo pump, which is a rotary pump including at least one servo pump wheel and can be rotationally driven by the drive shaft, for delivering the control fluid to the control valve.

IPC 8 full level

F04D 15/00 (2006.01)

CPC (source: EP US)

F04D 13/12 (2013.01 - US); **F04D 15/0038** (2013.01 - EP US); **F04D 13/021** (2013.01 - US); **F04D 15/0027** (2013.01 - US); **F05D 2270/64** (2013.01 - EP US)

Citation (search report)

- [E] EP 2455615 A2 20120523 - MAHLE INT GMBH [DE]
- [I] DE 102008026218 A1 20091203 - GERAETE & PUMPENBAU GMBH [DE]

Cited by

DE102012214503A1; DE102012214503B4; EP2698541A2; US9416786B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

DE 102011004172 B3 20120301; CN 102635556 A 20120815; CN 102635556 B 20151209; EP 2489881 A2 20120822; EP 2489881 A3 20130403; US 2012204818 A1 20120816; US 9080573 B2 20150714

DOCDB simple family (application)

DE 102011004172 A 20110215; CN 201210033218 A 20120214; EP 12155665 A 20120215; US 201213396806 A 20120215