

Title (en)

Cooling water pump.

Title (de)

Kühlwasserpumpe.

Title (fr)

Pompe de circulation d'eau de refroidissement.

Publication

EP 0465757 B1 19931215 (DE)

Application

EP 91101184 A 19910130

Priority

DE 4021716 A 19900707

Abstract (en)

[origin: US5131809A] A cooling water pump for combustion engines has, between a sealing element 6 and a bearing 5, an annular chamber 7 provided with at least two openings 8, 9 penetrating the cover 2 of the bearing on opposing sides of the shaft 4. At least one absorbent disc 10 is provided axially between the ventilating openings 8, 9 and the bearing 5.

IPC 1-7

F04D 29/12

IPC 8 full level

F04D 29/08 (2006.01); **F04D 29/10** (2006.01); **F04D 29/12** (2006.01)

CPC (source: EP US)

F04D 29/106 (2013.01 - EP US)

Cited by

EP0535724A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

EP 0465757 A2 19920115; EP 0465757 A3 19920219; EP 0465757 B1 19931215; AT E98748 T1 19940115; DE 59100720 D1 19940127; ES 2047347 T3 19940216; JP H04262095 A 19920917; JP H086709 B2 19960129; US 5131809 A 19920721

DOCDB simple family (application)

EP 91101184 A 19910130; AT 91101184 T 19910130; DE 59100720 T 19910130; ES 91101184 T 19910130; JP 16443991 A 19910704; US 71754591 A 19910619