

Title (en)
Coolant pump

Title (de)
Kühlmittelpumpe

Title (fr)
Pompe de refroidissement

Publication
EP 1988293 A2 20081105 (EN)

Application
EP 08103647 A 20080422

Priority
• US 91530007 P 20070501
• US 78136607 A 20070723

Abstract (en)
A coolant pump (90) includes a housing (95) having an internal axis; a bearing (100) disposed on an outside surface of the housing (95); a shaft (120) disposed along the internal axis of the housing (95), wherein the shaft (120) is journaled by the bearing (100) so as to be rotatable; an impeller (130) disposed on the shaft (120) so as to rotate with the shaft (120); and a seal (140) disposed on the shaft (120) at least partially inside of the bearing (100) so that the bearing (100) overlaps the seal (140) along the internal axis of the housing (95), wherein the bearing (100) has an inner diameter, the seal (140) has an outer diameter, and the inner diameter of the bearing (100) is greater than the outer diameter of the seal.

IPC 8 full level
F01P 5/10 (2006.01); **F04D 29/049** (2006.01); **F04D 29/10** (2006.01); **F04D 29/12** (2006.01)

CPC (source: EP US)
F04D 29/049 (2013.01 - EP US); **F04D 29/106** (2013.01 - EP US); **F04D 29/126** (2013.01 - EP US)

Citation (applicant)
• US 4650196 A 19870317 - BUCHER HANS [DE], et al
• US 5538259 A 19960723 - UHRNER KLAUS-JUERGEN [DE], et al
• US 2322834 A 19430629 - DORNHOFER LOUIS J
• US 2717790 A 19550913 - CHAMBERS JR ALBERT M, et al
• US 2994547 A 19610801 - DOLHUN LEONARD N, et al
• US 3782735 A 19740101 - NOVOSAD E
• US 4415167 A 19831115 - GITS NORBERT W [US]
• US 5676382 A 19971014 - DAHLHEIMER JOHN C [US]
• US 6145841 A 20001114 - MAEDA SHIGEKI [JP]
• US 6789803 B2 20040914 - RADOSAV JON J [US]

Designated contracting state (EPC)
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Designated extension state (EPC)
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DOCDB simple family (publication)
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