

Title (en)

Vane pump housing

Title (de)

Flügelzellenpumpengehäuse

Title (fr)

Boîtier de pompe à palettes

Publication

EP 1820935 A1 20070822 (EN)

Application

EP 07003258 A 20070215

Priority

US 77362106 P 20060215

Abstract (en)

A variable capacity vane pump has a housing defining a main chamber having an inlet port and an outlet port. A pump control ring (44) is moveable within the main chamber to alter the capacity of the pump. The control ring divides the main chamber into a pressurized region (45) and an unpressurized region. A vane pump rotor is rotatably mounted within the pump control ring. The vane pump rotor has a plurality of slidably mounted vanes engaging an inside surface of the pump control ring. The vane pump rotor has an axis of rotation eccentric from a centre of the pump control ring, whereby as the vane pump rotor rotates fluid is pressurized and moves from the inlet port to the outlet port. A control chamber (60,64) is provided between the pump casing and the pump control ring, and is operable to receive pressurized fluid to create a force to move the pump control ring to reduce the volumetric capacity of the pump. A return spring (56) acts between pump ring and the casing to bias the pump ring towards a position of maximum volumetric capacity. An opening (51) extends through the housing communicating with the unpressurized region, minimizes a clearance between the vane pump and engine on which the vane pump is mounted.

IPC 8 full level

F01C 21/10 (2006.01); **F04C 2/344** (2006.01); **F04C 14/22** (2006.01)

CPC (source: EP)

F01C 21/10 (2013.01); **F01M 1/02** (2013.01); **F04C 2/3441** (2013.01); **F04C 14/226** (2013.01); **F01M 2001/0238** (2013.01); **F01M 2001/0246** (2013.01); **F04C 2240/30** (2013.01)

Citation (applicant)

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- JP S59115483 A 19840703 - NISSAN MOTOR
- JP H08159046 A 19960618 - SYST SOGO KENKYUSHO KK

Citation (search report)

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- [PA] WO 2006066405 A1 20060629 - MAGNA POWERTRAIN USA INC [CA], et al
- [X] JP S59115483 A 19840703 - NISSAN MOTOR
- [X] DE 19722495 A1 19971211 - VOLKSWAGEN AG [DE]
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