

Title (en)
PUMP DEVICE AND VEHICLE

Title (de)
PUMPVORRICHTUNG UND FAHRZEUG

Title (fr)
DISPOSITIF DE POMPE ET VÉHICULE

Publication
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Application
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Abstract (en)
[origin: EP4056853A1] An embodiment of the present invention provides a pump device and vehicle, comprising: a casing, comprising a cavity; a motor portion, comprising a rotating shaft rotating around a central axis of the motor portion; a pump portion, the pump portion is arranged on an axial side of the motor portion and in contact with the rotating shaft, and can be driven by the rotating shaft to rotate; the pump portion comprises a first pressure chamber and a second pressure chamber, the pressure that the first pressure chamber bears is greater than the pressure that the second pressure chamber bears; a first bearing, connected with the casing and sleeved on the rotating shaft, the first bearing being located between the motor portion and the pump portion; a first oil groove, arranged on a first end surface of the first bearing facing the pump portion, and communicating with the first pressure chamber; and a throttle groove, provided on the first end surface, and communicating with a gap between the first oil groove and the first bearing, and the rotating shaft. The cooperation of the first oil groove and the throttle groove can not only meet the lubrication requirements between the first bearing and the rotating shaft, but also prevent the flow in the first bearing from being too large to reduce the displacement of the pump device.

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Citation (search report)

- [XAI] JP 2014173587 A 20140922 - HITACHI AUTOMOTIVE SYSTEMS LTD
- [A] CN 110469502 A 20191119 - UNIV LANZHOU TECH
- See references of WO 2022048364A1

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