

Title (en)
CENTRIFUGAL PUMP HAVING AN AXIAL THRUST BALANCING DEVICE

Title (de)
KREISELPUMPE MIT AXIALSCHUBAUSGLEICHSEINRICHTUNG

Title (fr)
POMPE CENTRIFUGE A DISPOSITIF DE COMPENSATION DE LA POUSSEE AXIALE

Publication
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Application
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Abstract (en)
[origin: WO2007104526A1] The invention relates to a single-stage centrifugal pump having an axial thrust balancing device, wherein a rotor which is connected to a shaft is arranged rotatably in the housing of the centrifugal pump. At least one split-ring seal which is arranged between the rotor and the housing forms a relief space, wherein the relief space is connected to the pressure region of the centrifugal pump by way of a pressure-transmitting connection. In addition, a shaft seal is arranged between the shaft and the housing. In a manner which is known per se, the shaft is provided with at least one roller bearing which absorbs axial forces. A pressure difference between a pressure in the relief space and a location at another pressure in the centrifugal pump housing acts via the connection as a permissible axial force in a constant direction on the rotating pump parts. This axial force acts on the roller bearing as a force in a constant direction which lies below a permissible bearing loading.

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