

Title (en)  
A DISPLACEMENT PUMP WITH A BARRIER AGAINST THE FLUID LEAKAGE

Title (de)  
VERDRÄNGUNGSPUMPE MIT EINER SPERRE GEGEN FLUIDLECKS

Title (fr)  
POMPE À DÉPLACEMENT AVEC BARRIÈRE CONTRE LA FUITE DE FLUIDE

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Application  
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Abstract (en)  
[origin: WO2009090079A2] A displacement pump driven by a motor, wherein a barrier (4.1; 8; 2.2) suitable for preventing or reducing the fluid leakage is inserted in at least one of the pump regions which are subjected to a leakage between the inner space of the pump and the outside. In one embodiment, in one of two component parts (2,4) subjected to relative movement is formed at least one step (4.1 ) which determines a limited region of mutual contact between the two component parts (2,4) subjected to relative movement, thus forming a sort of labyrinth which favors the seal against the fluid leakage. As an alternative, on one of the two component parts (2,4) subjected to relative movement is provided an annular inclined area (4.2) located facing a seat (2.1 ) for an annular sealing element (8) whereby, due to the pressure difference between the inner fluid and the outer fluid, the annular sealing element (8) is biased to contact against the annular inclined area (4.2). Moreover, the sealing barrier (2.2) can be provided in the region wherein there is a coupling joint (5) driving the rotor (4), by forming on the support member (2) a step (2.2) which acts as a closure for the rotor (4) and keeps in position the driving coupling joint (5), the coupling clearance being annulled by the oil penetrating between the parts.

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