

Title (en)

COOLANT PUMP HAVING AN IMPROVED GAP SEAL

Title (de)

KÜHLMITTELPUMPE MIT VERBESSERTER SPALTDICHTUNG

Title (fr)

POMPE À LIQUIDE DE REFROIDISSEMENT À JOINT D'INTERSTICE AMÉLIORÉ

Publication

**EP 4051906 A1 20220907 (DE)**

Application

**EP 20767520 A 20200902**

Priority

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Abstract (en)

[origin: WO2021083568A1] The invention relates to a coolant pump, which comprises a rotating slide ring (4), which is arranged on the pump impeller (2) at an axial end of the entry opening, and a static slide ring (5), which is arranged on the pump housing (1) around the mouth of the inlet (6) such that the static slide ring faces the rotating slide ring (4). The rotating slide ring (4) has a sliding surface (40) and the static slide ring (5) has a sliding surface (50). The sliding surfaces (40, 50) face each other and form a plain bearing, which absorbs a force directed axially from the pump impeller (2) to the pump housing (1). A microstructure for producing a hydrodynamic lubrication film between the sliding surfaces (40, 50) is formed on at least one of the sliding surfaces (40, 50) facing each other. The microstructure comprises cavities, which are designed to accumulate liquid coolant on the at least one sliding surface (40, 50).

IPC 8 full level

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