

Title (en)

GEAR OIL PUMP WITH INTERNAL ROTOR, COMPRISING EXTENSIONS OF RENIFORM SUCTION AND PRESSURE ELEMENTS

Title (de)

INNENLÄUFERZAHNRADÖLPUMPE MIT SAUG- UND DRUCKNIERENERWEITERUNGEN

Title (fr)

POMPE A HUILE A ENGRENAGES A ROTOR INTERNE, COMPORTANT DES PROLONGEMENTS DES ELEMENTS RENIFORMES D'ASPIRATION ET DE REFOULEMENT

Publication

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Application

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Abstract (en)

[origin: US6089842A] PCT No. PCT/DE97/02931 Sec. 371 Date Apr. 2, 1999 Sec. 102(e) Date Apr. 2, 1999 PCT Filed Dec. 16, 1997 PCT Pub. No. WO98/27339 PCT Pub. Date Jun. 25, 1998A gear pump with internal rotors for pumping fluids includes one or more internal gear rotors, a cover, at least one infeed reniform suction chamber in a pump housing, at least one discharge reniform pressure chamber in the pump housing, and a reniform pressure chamber extension. Each gear rotor has teeth, is located in the pump housing, and is driven by a central shaft. The cover seals the pump housing and is adjacent to the one or more internal gear rotors. Each infeed reniform suction chamber has a first end and a second end, and at least partially covers end areas of the teeth. Each discharge reniform pressure chamber has a first end and a second end, and at least partially covers the end areas of the teeth. The reniform pressure chamber extension has a first end and a second end and is located in the cover opposite the discharge reniform pressure chamber. The first end of the discharge reniform pressure chamber is substantially adjacent to the first end of the reniform pressure chamber extension. A radial distance between the first and second ends of the reniform pressure chamber extension is less than a radial distance between the first and second ends of the discharge reniform pressure chamber. The reniform pressure chamber extension covers the teeth to a lesser extent than does the discharge reniform pressure chamber.

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