

Title (en)
FLUID SYSTEM FOR OSCILLATING-PISTON ENGINES

Title (de)
FLUID-SYSTEM FÜR SCHWENKKOLBENMASCHINEN

Title (fr)
SYSTEME HYDRAULIQUE POUR MACHINE A PISTONS PIVOTANTS

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Application
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Abstract (en)
[origin: WO2007090314A1] The fluid system is intended for an oscillating-piston engine (100) which has at least two double-armed oscillating pistons (4) arranged in a spherical housing (19) and revolving together about an axis (23) of revolution arranged in the housing centre, wherein the oscillating pistons, when revolving, mutually perform reciprocating oscillating movements about an oscillation axis (24) perpendicular to the axis (23) of revolution, and guide members (5) attached to at least two pistons (4) engage in at least one guide groove (17) formed in the housing (19) and serving to control the oscillating movements. The fluid system (70) comprises at least one central feed opening (1), lying in the vicinity of an end of the axis (23) of revolution, for a fluid, continuous cavities and/or bores (10) in the pistons (4) for the fluid, and a fluid discharge on the outer side (3) of the respective piston. A rotation of the pistons (4) about the axis (23) of revolution causes a pressure difference which acts as suction at the feed opening (1) and as pressure in the discharge region (16) and thus makes possible a pumpless fluid system or a fluid system which needs only a low supply pressure. The fluid system serves, for example, to lubricate the oscillating-piston engine (100) and - when fuel is used as the fluid - can be supplied with fluid from a fuel tank together with a fuel supply and with cooling of the oscillating-piston engine.

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