

Title (en)
HYDRAULIC RADIAL PISTON ENGINE

Title (de)
HYDRAULISCHE RADIALKOLBENMASCHINE

Title (fr)
MACHINE HYDRAULIQUE A PISTONS RADIAUX

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Application
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Abstract (en)
[origin: WO0216769A1] The invention relates to a hydraulic radial piston engine comprising: a lifting ring (15) that is fixed to the housing; a rotor (18), which is mounted opposite the lifting ring such that it can rotate about a rotational axis; a multitude of piston seats (35) that, with regard to the rotational axis, are radially aligned inside the rotor, and; a multitude of pistons (50) of which each is displaceably mounted inside a piston seat, and which comprise, at least over a portion of their length, a non-circular guiding and sealing cross section. The guiding and sealing cross section of the pistons corresponds to a guiding and sealing cross section of the piston seats, which has a corresponding non-circular shape and which remains unchanged up to the exterior of the rotor. The hydraulic radial piston engine also comprises circular cylindrical rolls (58), which are supported inside bearing seats by the pistons, aligned with the rotational axis thereof in the direction of the rotational axis of the rotor, and which are provided for supporting the pistons on the lifting ring. The rolls have two faces (60), which face away from one another, and which extend perpendicular to the rotational axis thereof. According to the invention, the piston seats (35) comprise two wall sections (44), which are aligned perpendicular to the rotational axis of the rolls, and the distance between both faces of a roll is only slightly less than the distance between both flat wall sections (44) of the piston seats (35).

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