

Title (en)

ROTARY PISTON MACHINE OPERATING AS A PUMP, A COMPRESSOR OR A MOTOR

Title (de)

DREHKOLBENMASCHINE, DIE ALS PUMPE, VERDICHTER ODER MOTOR ARBEITET

Title (fr)

MACHINE À PISTON ROTATIF REMPLISSANT LA FONCTION D'UNE POMPE, D'UN COMPRESSEUR OU D'UN MOTEUR

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Application

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Abstract (en)

[origin: WO2012084289A2] The invention relates to a rotary piston machine which operates as a pump, a compressor, or a motor and which has a rotor (2) and a counter rotor (4), said counter rotor (4) being disposed opposite the rotor (2). The rotor (2) has a first end surface (6) with a first toothing system (8). The counter rotor (4) has a second end surface (14) with a second toothing system (16). The first (8) and the second toothing system (16) are each made of at least one tooth (10, 18) and a tooth space (12, 20). The toothing systems (8, 16) are in engagement with each other such that working chambers (24) are formed by means of the meshing of the teeth (10) of the first toothing system (8) and the teeth (18) of the second toothing system (16), wherein volumes that are formed by the working chambers (24) are changed by means of the meshing of the teeth (10, 18). The rotor (2) has a first rotational axis (I). The counter rotor (4) has a second rotational axis (II). The first rotational axis (I) and the second rotational axis (II) enclose an angle (f) that is not equal to 0 degrees. According to the invention, the rotor (2) has a first spherical ring-shaped inner wall (26) and the counter rotor (4) has a first spherical ring-shaped outer contour (28) that is designed in a complementary manner with respect to the first spherical ring-shaped inner wall (26) of the rotor (2).

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