

Title (en)

GEAR MACHINE WITH A SMALL DIAMETER-TO-LENGTH RATIO

Title (de)

ZAHNRADMASCHINE MIT KLEINEM DURCHMESSER-LÄNGENVERHÄLTNIS

Title (fr)

MACHINE À ENGRENAGE À RAPPORT DIAMÈTRE-LONGUEUR RÉDUIT

Publication

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Application

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Abstract (en)

[origin: WO2012084301A2] 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 (16) with a second toothing system (18). The first toothing system (8) is made of at least one first tooth (10) and a first tooth space (12). The second toothing system (18) is made of at least one second tooth (20) and a second tooth space (22) with a second tooth base (24). The toothing systems (8, 18) are in engagement with each other such that first working chambers (28) are formed by means of the meshing of the first teeth (10) of the first toothing system (8) and the second teeth (20) of the second toothing system (18), wherein volumes that are formed by the first working chambers (28) are changed by means of the meshing of the teeth (10, 20). The rotor (2) has a first rotational axis (I), and the counter rotor (4) has a second rotational axis (II). The first rotational axis (I) and the second rotational axis (II) enclose a first angle (f) that is not equal to 0°. A second extension (26) of a second surface line of the second tooth base (24), the first rotational axis (I), and the second rotational axis (II) intersect at a common central point (M). According to the invention, a second angle (β) that is enclosed between the second extension (26) and the second rotational axis (II) is smaller than 45°.

IPC 8 full level

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