

Title (en)
ANNULAR PISTON MACHINE

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Application
EP 81102706 A 19810409

Priority
• DE 3013603 A 19800409
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Abstract (en)
[origin: EP0038482A2] An annular piston machine has a toothed rotor, connected in a rotationally fixed manner to a shaft supported rotatably in a housing, and an annular piston, the number of teeth of which is one greater than that of the rotor, so that displacement chambers are formed between the teeth. Furthermore, inlet and outlet channels are provided in the housing or in the shaft, and discs and at least one control disc, provided with inlet and outlet control openings and abutting laterally on the rotor and the annular piston, and a housing annulus, having projections on its inner side, the centre line of which coincides with the centre axis of the rotor and on the inner side of which rolls the annular piston, provided with cut-outs on its outer side corresponding to the projections, and having built-in play, such that the centre axis of the annular piston describes a circular movement about the fixed centre axis of the rotor. In order to increase the efficiency of the annular piston machine and to reduce the supporting force between the rotor and the annular piston in the sliding region which is not used for transmitting torque in order to reduce the wear between the rotor and the annular piston, the projections on the housing annulus and the cut-outs in the annular piston are formed by involute or cycloid tooth systems and the point of engagement between the outer tooth system of the annular piston and the tooth system of the housing annulus and the torque transmission point between the toothed rotor and the annular piston are offset into the region of a diameter line separating the induction and compression chambers. <IMAGE>

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F01C 1/10

IPC 8 full level
F04C 2/10 (2006.01)

CPC (source: EP)
F04C 2/103 (2013.01)

Citation (search report)
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