

Title (en)
SPIRAL-TYPE POSITIVE-DISPLACEMENT MACHINE

Title (de)
VERDRÄNGERMASCHINE NACH DEM SPIRALPRINZIP

Title (fr)
MACHINE DE REFOULEMENT À SPIRALES

Publication
EP 2195511 B1 20111116 (DE)

Application
EP 08757301 A 20080710

Priority
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• CH 13192007 A 20070822

Abstract (en)
[origin: WO2009023974A1] In a positive-displacement machine for compressible media, having a spiral-shaped delivery chamber (11) arranged in a housing (7b) between cylinder walls (14, 15), a spiral-shaped positive-displacement body is composed of a disk (2) with spiral-shaped strips (3). Said strips (3) are held eccentrically with respect to the housing, in such a way that, during operation, each point of the strip performs a movement which is limited by the peripheral walls of the delivery chamber. The contour (20) of the disk is formed, in the overlapped region of the spiral at the point provided for the mutual sealing of the traversed chambers (11, 16), in the shape of the movement path. The housing edge (19) is formed, as a transition between the raised first part (17) and lowered second part (18) of the outer cylinder wall (14) of the housing, as a bulbous thickened portion. The radial extent 'D' of said thickened portion is at least as great as the degree of eccentricity ('e'). In periods of machine operation, in which a higher pressure prevails in the outer, sickle-shaped working chamber (11) than in the suction chamber (16), said circular-arc-shaped projection (19) together with the contour of the disk forms a sealing line (21) which extends over the height of the projection.

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