

Title (en)
SWASH PLATE MACHINE

Title (de)
SCHRÄGSCHNITTENMASCHINE

Title (fr)
MOTEUR À DISQUE EN NUTATION

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Application
EP 13742181 A 20130717

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Abstract (en)
[origin: WO2014032849A1] The invention relates to a swash plate machine (1) as an axial piston pump (2) and/or axial piston motor (3), comprising a cylinder drum (5), which is mounted such that it is rotatable or rotates about a rotation axis (8), having piston bores (6), pistons (7) mounted movably in the piston bores (6), a drive shaft (9) connected in a rotationally fixed manner to the cylinder drum (5), a pivoting cradle (14), which is mounted such that it can pivot about a pivot axis (15), a cradle bearing for the pivoting cradle (14), at least one pivoting device (24) for pivoting the pivoting cradle (14), which device is connected to the pivoting cradle (14) at in each case one connection point (32), a low-pressure opening for letting hydraulic liquid into and/or out of the rotating piston bores (6), a high-pressure opening for letting hydraulic liquid out of and/or into the rotating piston bores (6), wherein, in an imaginary section having an imaginary section plane in and parallel to the rotation axis (8) of the cylinder drum (5) and perpendicular to the pivot axis (15) of the pivoting cradle (14), the swash plate machine (1) is divided into an imaginary first part featuring the high-pressure opening at the cylinder drum (5) and an imaginary second part featuring the low-pressure opening at the cylinder drum (5), and the resulting force, which is exerted by the at least one pivoting device (24) on the pivoting cradle (14), in particular owing to the configuration and/or arrangement of the at least one connection point (32), can be introduced into the pivoting cradle (14) in the imaginary second part, in order to reduce the pressure forces occurring between the cradle bearing and the pivoting cradle (14) in the imaginary first part.

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