Title (en)

Axial piston pump.

Title (de)

Axialkolbenpumpe.

Title (fr)

Pompe à pistons axiaux.

Publication

EP 0608144 A3 19941221 (EN)

Application

EP 94300461 A 19940121

Priority

GB 9301163 A 19930121

Abstract (en)

[origin: EP0608144A2] An axial piston pump comprises a drive shaft (2), a cylinder block (4) rotatable with the drive shaft (2), a plurality of pistons (6a-6i) provided within the cylinder block (4), a swashplate (12) situated at one axial end of the cylinder block (4) for causing reciprocation of the pistons (6a-6i) when the said cylinder block (4) is rotated, and a valve plate (26) situated at a second axial end of the cylinder block (4); wherein either one of the cylinder block (4) or valve plate (26) is urged against the other to form a hydrostatic seal between the cylinder block (4) and a face (52) of the said valve plate (26). The pump may be characterised by one or both of the following features:- A spiral groove bearing (50) is provided between the valve plate (26) and the cylinder block (4). The valve plate (26) is urged against the cylinder block (4) by means of a second piston (60) which has an arcuate load face. Additionally, an axial piston pump comprises a drive shaft (2), a cylinder block (4) rotatable with the drive shaft (2), a plurality of pistons (6a-6i) provided within the cylinder block (4), a swashplate (12) situated at one axial end of the cylinder block (4) for causing reciprocation of the pistons (6a-6i) when the cylinder block (4) is rotated; the said swashplate (12) being provided with a curved back, the curved back being seated within a curved recess in a swashplate cradle (14), a hydrostatic bearing (70, 72) being formed between the said curved back of the swashplate (12) and the curved recess of the swashplate cradle (14), and the said swashplate (12) being capable of swivelling within the said recess; wherein high pressure oil is supplied to the said hydrostatic bearing (70,72) via a passage provided in at least one of the said pistons and via a hole (80) provided in the body of the said swashplate (12). <IMAGE> <IMAGE> <IMAGE>

IPC 1-7

F04B 1/20

IPC 8 full level

F04B 1/20 (2006.01)

CPC (source: EP)

F04B 1/2007 (2013.01); **F04B 1/2028** (2013.01); **F04B 1/2085** (2013.01)

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