

Title (en)
HYDRAULIC PUMP OR MOTOR

Title (de)
HYDRAULISCHE PUMPE ODER MOTOR

Title (fr)
POMPE OU MOTEUR HYDRAULIQUE

Publication
EP 1030057 A4 20040630 (EN)

Application
EP 98947948 A 19981020

Priority
• JP 9804732 W 19981020
• JP 28696497 A 19971020

Abstract (en)
[origin: EP1030057A1] Pistons and shoes are allowed to slide slightly on contact surfaces thereof, but are surely prevented from separating from each other. There are provided a rotating disk rotatably supported in a housing, and a cylinder block rotatably supported in the housing. The cylinder block has an of rotation inclined relative to an axis of rotation of the rotating disk. A plurality of cylinder bores are arranged on a circle about the axis of rotation of the cylinder block, and pistons are slidably accommodated in the respective cylinder bores. Semi-spherical shoes having spherical surfaces contacted with the rotating disk and flat smooth surfaces on the opposite side contacted with the pistons are provided. Connecting devices are further provided for connecting the pistons and the shoes to each other. The connecting devices allow the pistons and shoes to slide on each other in a direction along their contact surfaces, but prevent them from moving in a direction away from each other. A valve plate fixed to the housing is slidably contacted with a bottom surface of the cylinder block, and allows successive inflow and outflow of a working fluid to and from the respective cylinder bores as the cylinder block rotates. A joint is provided to connect the rotating disk and the cylinder block to each other to cause synchronous rotation of both. Either the rotating disk or the cylinder block is connected to a drive shaft. <IMAGE>

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F04B 1/24; **F04B 53/18**; **F04B 1/12**

IPC 8 full level
F03C 1/30 (2006.01); **F04B 1/12** (2006.01); **F04B 1/24** (2006.01); **F04B 53/18** (2006.01)

CPC (source: EP)
F04B 1/126 (2013.01); **F04B 1/24** (2013.01); **F04B 53/18** (2013.01)

Citation (search report)
• No further relevant documents disclosed
• See references of WO 9920899A1

Cited by
WO2008080444A1; CN108286492A; CN103075316A; US8316995B2

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