

Title (en)  
Radial-piston machine.

Title (de)  
Radialkolbenmaschine.

Title (fr)  
Machine à pistons radiaux.

Publication  
**EP 0401408 B1 19931229 (DE)**

Application  
**EP 89110348 A 19890608**

Priority  
EP 89110348 A 19890608

Abstract (en)  
[origin: JPH03115782A] PURPOSE: To manufacture a radial piston device at a low cost by providing a spherical piston head which can guide each piston so that the piston can inclined in its cylinder bore in order to define a working chamber located radially inward. CONSTITUTION: Each piston 20 is provided with a spherical piston head 21 which guides the piston 20 so as to be inclined in its cylinder bore 15 in order to define a working chamber located radially inward. The piston 20 has an overall length, including its head 23 and shoe 24, which slightly exceeds the length of the piston bore 15, and the shoe 24 is cooperated with a cam ring 35 arranged eccentric from a cylinder block 14. Thus, when the block 14 is rotated, the piston 20 strokes. In this phase, the piston 20 is inclined. Further, the working chamber between the head 21 and the hole 15 is enlarged in the zone of an inlet groove 5, but is narrowed in the zone of the outlet groove 6, and the head 21 has a groove 22 adjacent to the equator thereof, in which at least one piston ring 30 is inserted.

IPC 1-7  
**F04B 1/10**; **F04B 1/04**

IPC 8 full level  
**F04B 1/10** (2006.01); **F03C 1/053** (2006.01); **F03C 1/247** (2006.01); **F03C 1/28** (2006.01); **F03C 1/30** (2006.01); **F03C 1/36** (2006.01); **F04B 1/04** (2006.01); **F04B 1/107** (2006.01); **F04B 1/113** (2006.01)

CPC (source: EP US)  
**F04B 1/0408** (2013.01 - EP US); **F04B 1/1071** (2013.01 - EP US)

Cited by  
DE102009054548A1; EP0687814A3; DE102019205824A1; DE102014215255A1; WO2020254501A1; DE202010013078U1; WO2011070019A1

Designated contracting state (EPC)  
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**EP 89110348 A 19890608**; DE 58906590 T 19890608; JP 14884090 A 19900608; US 53467490 A 19900607