

Title (en)  
Piston pump

Title (de)  
Hubkolbenpumpe

Title (fr)  
Pompe à piston

Publication  
**EP 0666418 B1 19970423 (DE)**

Application  
**EP 95100277 A 19950111**

Priority  
• DE 4402650 A 19940129  
• DE 4427612 A 19940804

Abstract (en)  
[origin: US5573386A] A reciprocating piston pump having a housing, pistons disposed opposite one another in the housing, an eccentric between the pistons, annular grooves that fit around the piston necks machined into piston ends oriented toward the eccentric, and a U-shaped hoop spring curved radially outside the eccentric in the circumferential direction thereof. The hoop spring includes forklike hoop spring ends which engage the annular grooves and press the piston ends toward the eccentric. In the circumferential direction of the substantially U-shaped hoop spring, a continuation is formed on the hoop spring and together with a stop disk aligned transversely to the eccentric shaft, forms a device that limits the pivotability of the hoop spring about the piston necks. The reciprocating piston pump is usable for instance in hydraulic motor vehicle brake systems and in other hydraulic equipment.

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

IPC 8 full level  
**F04B 1/04** (2006.01); **F04B 1/047** (2006.01); **F04B 1/053** (2006.01)

CPC (source: EP US)  
**F04B 1/0426** (2013.01 - EP US); **F04B 9/045** (2013.01 - EP US); **F05B 2230/41** (2013.01 - EP US); **F05C 2253/12** (2013.01 - EP US)

Cited by  
DE10236853A1; DE19948447A1; EP2278161A3; WO9825028A1

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**US 5573386 A 19961112**; EP 0666418 A1 19950809; EP 0666418 B1 19970423; JP H07224755 A 19950822

DOCDB simple family (application)  
**US 37436695 A 19950118**; EP 95100277 A 19950111; JP 1087495 A 19950126