

Title (en)
RECIPROCATING PUMP

Publication
EP 0035570 B1 19841114 (EN)

Application
EP 80900420 A 19810408

Priority
JP 12970179 U 19790918

Abstract (en)
[origin: EP0035570A1] A suction hole (91a) and a discharge hole (91b) are formed at the center and on the outer periphery of a valve seat (91) mounted at the end of a cylinder (5) in a reciprocating pump. A suction valve (92) and a discharge valve (93) are provided at the inner and outer surfaces of the valve seat (91) at a cylinder chamber (5a) side to be urged toward the valve seat (91) by first and second valve springs (94) and (95). Further, a spring retainer (11) is provided midway along the cylinder (5) through which a plunger (7) is telescoped to allow passage of the plunger (7) for supporting the first valve spring (94) so that the position for the plunger (7) to complete its reciprocating motion is provided in the vicinity of the valve (93) to thereby reduce the excessive volume and accordingly the residual air amount so as to improve the rise at restarting time.

IPC 1-7
F04B 21/02

IPC 8 full level
F04B 53/10 (2006.01); **F04B 53/16** (2006.01)

CPC (source: EP)
F04B 53/103 (2013.01); **F04B 53/109** (2013.01)

Cited by
EP1375920A1

Designated contracting state (EPC)
DE GB NL

DOCDB simple family (publication)
EP 0035570 A1 19810916; EP 0035570 A4 19820111; EP 0035570 B1 19841114; DE 3069616 D1 19841220; JP S5647274 U 19810427; JP S5922303 Y2 19840703; WO 8100890 A1 19810402

DOCDB simple family (application)
EP 80900420 A 19810408; DE 3069616 T 19800125; JP 12970179 U 19790918; JP 8000010 W 19800125