

Title (en)
Free piston pump.

Title (de)
Freikolbenpumpe.

Title (fr)
Pompe à piston libre.

Publication
EP 0136366 A1 19850410 (EN)

Application
EP 83109826 A 19830930

Priority
EP 83109826 A 19830930

Abstract (en)
A pumping system which converts a source of gas under pressure to hydraulic fluid under pressure. The system includes three free floating pistons (P1,P2,P3) coupled through control valves (V1,V2,V3) to the pressurized gas source on one side and through appropriate check valves to hydraulic fluid on the other side (P4,P5,P6). The pistons are reciprocated within respective cylinders by application of the pressurized gas to one side thereof and by application of the return pressure of the hydraulic fluid to the other side thereof. Appropriate porting on the gas side of the pistons sequentially applies the gas under pressure to the three pistons to synchronize reciprocation of them so as to provide a continuous flow of fluid under pressure, upon demand, to a load.

IPC 1-7
F04B 9/12; **F01L 25/04**

IPC 8 full level
F01L 25/04 (2006.01); **F04B 9/127** (2006.01)

CPC (source: EP)
F01L 25/04 (2013.01); **F04B 9/1276** (2013.01)

Citation (search report)
• [X] US 3650638 A 19720321 - COLE CLINTON W
• [A] US 3847511 A 19741112 - COLE C
• [A] DE 2065829 A1 19760318 - HALLIBURTON CO
• [A] US 2652035 A 19530915 - PHILIP BAYER
• [A] US 2642045 A 19530616 - POTTS ERNEST L
• [A] US 3019735 A 19620206 - MOELLER JOHN D, et al
• [A] US 3916765 A 19751104 - HILTON JOHN LESLIE
• [A] FR 2146019 A5 19730223 - DORR OLIVER INC, et al
• [AD] US 2858767 A 19581104 - SMITH NEIL V

Designated contracting state (EPC)
BE DE FR GB IT LU NL SE

DOCDB simple family (publication)
EP 0136366 A1 19850410

DOCDB simple family (application)
EP 83109826 A 19830930