

Title (en)

ORBITING VALVE FOR A RECIPROCATING PUMP

Title (de)

SCHWINGVENTIL FÜR HUBKOLBENPUMPE

Title (fr)

SOUPAPE A MOUVEMENT ORBITAL DESTINEE A UNE POMPE ALTERNATIVE

Publication

**EP 1789678 A1 20070530 (EN)**

Application

**EP 05796351 A 20050915**

Priority

- US 2005032856 W 20050915
- US 61001304 P 20040915

Abstract (en)

[origin: WO2006031935A1] For pumps, compressors, and air or hydraulic motors with multiple cylinders such as swashplate or nutating type pumps and compressors with axial pistons arranged about a central axis, a orbit valve is connected through an eccentric and bearing to the shaft and caused to orbit around an axis of the shaft by rotation of the shaft. Grooves in the orbit valve surface alternately connect a port in each cylinder with a fixed intake and an exhaust port in the valve plate ties for optimal performance without depending on pressure differential otherwise needed to open and close passive flapper or poppet-type valves. The orbiting motion provides direct acting valve action for intake and exhaust functions with much slower relative motion and far less friction than a rotating valve of similar size.

IPC 8 full level

**F04B 1/12** (2006.01); **F01B 13/04** (2006.01); **F04B 7/00** (2006.01); **F04B 17/00** (2006.01); **F04B 39/10** (2006.01)

CPC (source: EP GB US)

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