

Title (en)

Compression of liquids and gas supply apparatus

Title (de)

Verdichten von Flüssigkeiten und Gasversorgungsanlage

Title (fr)

Compression de liquides et installation d'alimentation en gaz

Publication

**EP 0992734 A3 20061213 (DE)**

Application

**EP 99116241 A 19990817**

Priority

DE 19839233 A 19980828

Abstract (en)

[origin: DE19839233A1] The cylinder can be operated with suction and pump strokes, sucking fluid into the cylinder and then pumping it out. The piston can be sealed against the cylinder wall by components containing polymer. Fluid is sucked into the cylinder by at least one suction valve formed as a check valve. The piston is driven in the cylinder hydraulically, pneumatically or by a crank drive.

IPC 8 full level

**F04B 15/08** (2006.01); **F04B 39/00** (2006.01); **F04B 49/00** (2006.01); **F04B 53/16** (2006.01); **F17C 9/00** (2006.01)

CPC (source: EP)

**F04B 39/00** (2013.01); **F04B 49/00** (2013.01); **F17C 9/00** (2013.01); **F04B 2201/0202** (2013.01); **F17C 2201/0104** (2013.01); **F17C 2203/0673** (2013.01); **F17C 2205/0323** (2013.01); **F17C 2205/0335** (2013.01); **F17C 2223/0153** (2013.01); **F17C 2223/035** (2013.01); **F17C 2223/036** (2013.01); **F17C 2227/0135** (2013.01); **F17C 2227/0157** (2013.01); **F17C 2227/0393** (2013.01)

Citation (search report)

- [XY] US 1937859 A 19331205 - THOMAS ROSSWELL W
- [XY] EP 0586294 A1 19940309 - AIR LIQUIDE [FR]
- [A] DE 629833 C 19360514 - MEAF MACH EN APPARATEN FAB NV
- [A] US 5214925 A 19930601 - HOY KENNETH L [US], et al
- [A] DE 3135726 A1 19820422 - SCRABACK ERNST
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- [A] FR 2613034 A1 19880930 - DEUTSCHE FORSCH LUFT RAUMFAHRT [DE]
- [A] DE 1728148 A1 19720323 - LINDE AG

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Designated extension state (EPC)

AL LT LV MK RO SI

DOCDB simple family (publication)

**DE 19839233 A1 20000302**; EP 0992734 A2 20000412; EP 0992734 A3 20061213

DOCDB simple family (application)

**DE 19839233 A 19980828**; EP 99116241 A 19990817