

Title (en)

Control valve for variable displacement compressor

Title (de)

Kontrollventil für einen verstellbaren Taumelscheibenverdichter

Title (fr)

Soupape de contrôle pour un compresseur à plateau en biais à capacité variable

Publication

EP 1024286 A3 20010207 (EN)

Application

EP 00101797 A 20000128

Priority

JP 2144099 A 19990129

Abstract (en)

[origin: EP1024286A2] A displacement control valve adjusts the pressure in a crank chamber (5) of a compressor to vary the displacement of the compressor. The control valve has a first valve mechanism (60), a second valve mechanism (70) and a solenoid mechanism (80). The solenoid mechanism (80) independently actuates the first and second valve mechanisms (60, 70). The first valve mechanism (60) selectively opens and closes a supply passage (28) of the compressor. The second valve mechanism (70) adjusts the flow rate of gas through a bleed passage (27) of the compressor. The second valve mechanism (70) includes a second valve opening (72), a second valve element (73), a bellows (76) and a second plunger (83). The second valve element (73) and the bellows (76) are accommodated in a single pressure chamber (71). The pressure of a suction chamber is introduced to the pressure chamber (71). The control valve has a relatively simple structure and is thus inexpensive and compact.

<IMAGE>

IPC 1-7

F04B 27/18

IPC 8 full level

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CPC (source: EP)

F04B 27/1804 (2013.01); **F04B 2027/1813** (2013.01); **F04B 2027/1827** (2013.01); **F04B 2027/1831** (2013.01); **F04B 2027/1854** (2013.01); **F04B 2027/1859** (2013.01)

Citation (search report)

- [Y] DE 19733099 A1 19980212 - TOYODA AUTOMATIC LOOM WORKS [JP]
- [Y] EP 0498552 A1 19920812 - SANDEN CORP [JP]
- [A] US 5836748 A 19981117 - KAWAGUCHI MASAHIRO [JP], et al

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EP1775470A4; EP1186778A3; EP1179680A3; EP1586772A4; CN104074722A; EP1764505A1; CN111670304A

Designated contracting state (EPC)

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DOCDB simple family (publication)

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