

## 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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## 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

## Cited by

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

## Designated contracting state (EPC)

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