

Title (en)

Displacement control valve for use in a variable displacement compressor

Title (de)

Ventil zur Hubregelung zur Verwendung in einem Kompressor mit veränderlicher Verdrängung

Title (fr)

Souape de contrôle de déplacement pour utilisation dans un compresseur à capacité variable

Publication

**EP 0965754 A3 20000202 (EN)**

Application

**EP 99111736 A 19990617**

Priority

JP 17118098 A 19980618

Abstract (en)

[origin: EP0965754A2] A valve for controlling a displacement volume of a compressor having a suction chamber, a discharge chamber, and a crank chamber, has a communication passage communicating between the crank chamber and the discharge chamber and a valve member projecting in the communication passage for controlling an opening degree of the communication passage, the valve member directly receiving a gas pressure of the crank chamber at its projecting end. The valve has a first driving member sensing a difference between the gas pressure between the crank chamber and the suction chamber to drive the valve member to opening of the communication passage, and a second driving member sensing a pressure difference between gas pressures of the discharge chamber and the crank chamber to drive the valve member to closing of the communication passage. In order to cancel the crank chamber gas pressure directly applied onto the valve member, the valve has a pressure room communicating with the communication passage for being introduced with the pressure of the crank chamber. The valve member has an opposite end projecting in the pressure room. The second driving member has a sensing rod which has an end subjected to the discharge chamber gas pressure and an opposite end exposed in the pressure room. The sensing rod pushes the valve member by a force corresponding to a pressure difference between the crank chamber and the discharge chamber. <IMAGE>

IPC 1-7

**F04B 27/18**

IPC 8 full level

**F16K 31/126** (2006.01); **F04B 27/14** (2006.01); **F04B 27/18** (2006.01)

CPC (source: EP)

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Citation (search report)

- [X] WO 9416225 A1 19940721 - TOYODA AUTOMATIC LOOM WORKS [JP], et al
- [X] US 5531572 A 19960702 - KIMURA KAZUYA [JP], et al
- [X] US 5145326 A 19920908 - IMURA KAZUYA [JP], et al
- [X] DE 19716089 A1 19971106 - TOYODA AUTOMATIC LOOM WORKS [JP]
- [A] EP 0498552 A1 19920812 - SANDEN CORP [JP]
- [A] US 5063829 A 19911112 - TAKAO KUNIHICO [JP], et al
- [PX] EP 0854288 A2 19980722 - TOYODA AUTOMATIC LOOM WORKS [JP]
- [PX] EP 0907021 A2 19990407 - SANDEN CORP [JP]

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