

Title (en)
Slant plate type compressor with variable capacity control mechanism

Title (de)
Verdrängungsvariabler Taumelscheibenkompressor mit Steuerungsmechanismus

Title (fr)
Appareil de commande pour compresseur à plateau en biais à déplacement variable

Publication
EP 0845593 A1 19980603 (EN)

Application
EP 97119750 A 19971111

Priority
JP 29829696 A 19961111

Abstract (en)
A slant plate type compressor having a capacity adjusting mechanism includes a housing enclosing a crank chamber (22), a suction chamber (241) and a discharge chamber (251) therein. A piston is slidably fitted within each of the cylinders. An inlet port (650) of the compressor is continually linked to a crank chamber in fluid communication through an pressure equalizing path. A pressure applying path (640) conducts the discharge pressure to the regulating mechanism, which regulates a flow amount from the inlet port (620) to the suction chamber, from the discharge chamber so as to apply the discharge pressure force to the regulating mechanism. The pressure force applied to the regulating mechanism varies in response to change in pressure in the inlet port, so that the flow amount from the inlet port to the suction chamber is adjusted thereby adjusting the pressure differential between the crank and suction chambers. A oil flow back path is overlapped with the pressure applying path in part, so that the lubricating oil can effectively flow back to the crank chamber from the discharge chamber during the capacity control stage of the compressor.
<IMAGE>

IPC 1-7
F04B 1/00; **F04B 27/18**

IPC 8 full level
F04B 39/02 (2006.01); **F04B 27/08** (2006.01); **F04B 27/14** (2006.01); **F04B 27/18** (2006.01); **F04B 49/00** (2006.01); **F04B 49/22** (2006.01)

CPC (source: EP)
F04B 27/1804 (2013.01); **F04B 49/225** (2013.01); **F04B 2027/1827** (2013.01); **F04B 2027/1854** (2013.01); **F04B 2027/1859** (2013.01)

Citation (search report)
• [XA] DE 19517333 A1 19951116 - TOYODA AUTOMATIC LOOM WORKS [JP]
• [X] EP 0707182 A2 19960417 - TOYODA AUTOMATIC LOOM WORKS [JP]
• [PX] DE 19716089 A1 19971106 - TOYODA AUTOMATIC LOOM WORKS [JP]

Cited by
EP1059445A3; FR2783022A1; FR2794183A1; EP1489304A1; EP1059444A3; EP1001170A3; EP1036940A3; EP1067287A4; DE10014080C2; EP0992684A3; EP0881387A3; EP1126169A3; EP1696123A1; EP1059446A3; EP1039129A3; EP1172559A3; CN103890391A; US6352416B1; US7651321B2

Designated contracting state (EPC)
DE FR

DOCDB simple family (publication)
EP 0845593 A1 19980603; **EP 0845593 B1 19990915**; DE 69700524 D1 19991021; DE 69700524 T2 20000302; JP H10141219 A 19980526

DOCDB simple family (application)
EP 97119750 A 19971111; DE 69700524 T 19971111; JP 29829696 A 19961111