

Title (en)
Lubrication for scroll compressor.

Title (de)
Schmierungssystem für Spiralverdichter.

Title (fr)
Système de lubrification pour compresseur à spirales.

Publication
EP 0452896 B1 19940216 (EN)

Application
EP 91106116 A 19910417

Priority
JP 9941490 A 19900417

Abstract (en)
[origin: EP0452896A1] This invention discloses a lubricating mechanism of a hermetically sealed scroll type compressor. The compressor includes a hermetically sealed housing and a motor driven drive shaft supported by a plurality of plain bearings in an inner block member. The drive shaft (15) is provided with pin member (16) at its upper end. The axis of pin member is radially shifted from the axis of the drive shaft. Pin member (16) operatively connected to an orbiting scroll which orbits within a fixed scroll. A rotation preventing device prevents rotation of the orbiting scroll. The drive shaft includes an axial bore (151) extending from a lower end thereof to a lower end of the pin member. A centrifugal pump (17) is provided at a lower end of the axial bore, and immersed in the lubricating oil sump at an inner bottom of the housing. A throttling device (18) such as an orifice tube penetrates through the pin member. The lubricating oil at the inner bottom of the housing is supplied to the frictional surfaces of the slidable members of the compressor by virtue of operation of the centrifugal pump (17) via the axial bore (151) and the orifice tube (18). Thereby, the frictional surfaces can receive a sufficient, but not, excessive amount of the lubricating oil in any rotational speed of the drive shaft so that the frictional surfaces are effectively lubricated. <IMAGE>

IPC 1-7
F04C 29/02; **F04C 18/02**

IPC 8 full level
F04C 18/02 (2006.01); **F04C 28/08** (2006.01); **F04C 29/02** (2006.01)

CPC (source: EP KR)
F04C 18/063 (2013.01 - KR); **F04C 29/028** (2013.01 - EP)

Citation (examination)
JP H0673083 A 19940315 - TAKARA SHUZO CO

Cited by
CN114127424A

Designated contracting state (EPC)
DE FR GB IT SE

DOCDB simple family (publication)
EP 0452896 A1 19911023; **EP 0452896 B1 19940216**; AU 640218 B2 19930819; AU 7438991 A 19911107; CA 2040721 A1 19911018; DE 69101168 D1 19940324; DE 69101168 T2 19940721; JP H041485 A 19920106; KR 100192699 B1 19990615; KR 920005749 A 19920403

DOCDB simple family (application)
EP 91106116 A 19910417; AU 7438991 A 19910412; CA 2040721 A 19910417; DE 69101168 T 19910417; JP 9941490 A 19900417; KR 910006065 A 19910416