

Title (en)
Vacuum pump

Title (de)
Vakuumpumpe

Title (fr)
Pompe à vide

Publication
EP 1304484 A3 20030903 (EN)

Application
EP 02023201 A 20021016

Priority
JP 2001318893 A 20011017

Abstract (en)
[origin: EP1304484A2] A vacuum pump has an oil housing (14), which defines a pump chamber (43) and an oil zone (331) adjacent to the pump chamber (43). A rotary shaft (19, 20) extends from the pump chamber (43) through the oil housing (14) and projects to the oil zone (331). A non-contact sealing element (67, 68, 72) is attached to the rotary shaft (19, 20) to integrally rotate with the rotary shaft (19, 20). The element (67, 68, 72) prevents oil from entering the pump chamber (43). The vacuum pump draws gas by operating a gas conveying body (23) in the pump chamber (43) through rotation of the rotary shaft (19, 20). When the rotary shaft (19, 20) shifts from an operation state to a stopped state, the pressure difference occurs between the pump chamber (43) and the oil zone (331). Rotation of the rotary shaft (19, 20) is controlled such that the pressure difference becomes maximum before the rotary shaft (19, 20) completely stops. <IMAGE> <IMAGE>

IPC 1-7
F04C 29/10; **F04C 27/00**

IPC 8 full level
F04B 39/04 (2006.01); **F04B 49/06** (2006.01); **F04C 27/00** (2006.01); **F04C 28/06** (2006.01)

CPC (source: EP US)
F04C 27/009 (2013.01 - EP US); **F04C 28/06** (2013.01 - EP US); **F04C 2240/403** (2013.01 - EP US)

Citation (search report)

- [X] FR 1449257 A 19660812 - DRESSER IND
- [A] EP 0674106 A1 19950927 - CHEMITEC CO LTD [JP]
- [A] EP 1006281 A1 20000607 - TOYODA AUTOMATIC LOOM WORKS [JP]

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)
EP 1304484 A2 20030423; **EP 1304484 A3 20030903**; JP 2003120543 A 20030423; JP 3941452 B2 20070704; US 2003072651 A1 20030417

DOCDB simple family (application)
EP 02023201 A 20021016; JP 2001318893 A 20011017; US 27271102 A 20021017