

Title (en)  
Vacuum pump

Title (de)  
Vakuumpumpe

Title (fr)  
Pompe à vide

Publication  
**EP 1199475 A3 20030305 (EN)**

Application  
**EP 01124518 A 20011012**

Priority  
JP 2000314967 A 20001016

Abstract (en)  
[origin: EP1199475A2] Passage structure for a vacuum pump has a flange, a muffler, a valve hole forming body, a guide pipe and an exhaust pipe. The flange is coupled to the muffler. The muffler is detachably fitted into the valve hole forming body. The valve hole forming body is detachably fitted into the guide pipe. The exhaust pipe is coupled to the guide pipe via the valve hole forming body. Each flange of the muffler, the valve hole forming body and the guide pipe is screw-on all together. A backflow preventing means is constituted of the guide pipe, the valve hole forming body, a valve body and a return spring. The guide pipe accommodates the valve body and the return spring therein. The valve body opens and closes a valve hole formed at the valve hole forming body. A separation preventing means is engaged with an inner circumferential surface of the guide pipe.  
<IMAGE>

IPC 1-7  
**F04C 18/12; F04C 29/08; F04C 29/06**

IPC 8 full level  
**F04C 25/02** (2006.01); **F04C 23/00** (2006.01); **F04C 29/00** (2006.01); **F04C 29/06** (2006.01); **F04C 29/12** (2006.01); **F04C 18/12** (2006.01)

CPC (source: EP)  
**F04C 29/065** (2013.01); **F04C 29/12** (2013.01); **F04C 18/126** (2013.01)

Citation (search report)

- [X] EP 0354161 A2 19900207 - CARRIER CORP [US]
- [X] DE 4039644 A1 19910620 - VAILLANT JOH GMBH & CO [DE]
- [X] FR 1188975 A 19590928 - COMP GENERALE ELECTRICITE
- [A] US 3958603 A 19760525 - BANNON JOHN, et al
- [A] FR 2372363 A1 19780623 - BOSCH SIEMENS HAUSGERAETE [DE]

Cited by  
CN104114866A; EP1856407A4; WO2006096178A1

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DOCDB simple family (publication)  
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