

Title (en)

Multi-stage Roots pump and method of producing the housing

Title (de)

Mehrstufige Rootspumpe und Verfahren zur Herstellung des Gehäuses

Title (fr)

Pompe Roots multiétagée et procédé de fabrication du boîtier

Publication

EP 1020645 A1 20000719 (EN)

Application

EP 99124197 A 19991203

Priority

JP 413699 A 19990111

Abstract (en)

The multi-stage Roots pump has a rotor housing having a plurality of axially spaced pump chambers (39-43). A set of rotors (23-32) are arranged on respective shafts (19,20) in mesh with each other and accommodated in each of the pump chambers. The rotor housing includes a cylinder block (11) and a plurality of partition walls (33-36) formed separately from and coupled to the cylinder block to divide the cylinder block into the pump chambers. The cylinder block includes a plurality of block elements (17,18) parted along lines (L) extending parallel to the axes of the shafts and joined together so as to form inner circumferential surfaces of the pump chambers. The block elements and the partition walls form, in combination, the rotor housing. <IMAGE>

IPC 1-7

F04C 11/00

IPC 8 full level

F04C 18/18 (2006.01); **F04C 2/08** (2006.01); **F04C 2/18** (2006.01); **F04C 11/00** (2006.01)

CPC (source: EP KR)

F04C 2/086 (2013.01 - EP); **F04C 11/001** (2013.01 - EP); **F04C 18/18** (2013.01 - KR)

Citation (search report)

- [XY] EP 0480629 A1 19920415 - BOC GROUP PLC [GB]
- [Y] US 4328824 A 19820511 - KIERNAN JAMES G, et al
- [Y] US 4531535 A 19850730 - KIERNAN JAMES G [US], et al

Cited by

CN110177947A; FR2813104A1; CN104329172A; DE202014007117U1; CN106662107A; DE202017001029U1; US6572351B2; US7278776B2; WO2018134598A3; WO2004013386A3; WO0216773A1; US11578722B2; US11255328B2; EP3189236A2

Designated contracting state (EPC)

DE FR NL

DOCDB simple family (publication)

EP 1020645 A1 20000719; JP 2000205148 A 20000725; KR 20000052324 A 20000816

DOCDB simple family (application)

EP 99124197 A 19991203; JP 413699 A 19990111; KR 19990038696 A 19990910