

Title (en)
SELF-PRIMING PUMP

Title (de)
SELBSTANSAUGENDE PUMPE

Title (fr)
POMPE AUTO-ASPIRANTE

Publication
EP 3268616 A1 20180117 (DE)

Application
EP 16709450 A 20160311

Priority
• DE 102015003224 A 20150313
• EP 2016055283 W 20160311

Abstract (en)
[origin: WO2016146523A1] The invention relates to a self-priming pump (1) having a housing (9), an inlet (4) and an outlet (5), having a first impeller (15) with a first pump section (17) that is arranged in a first chamber (18), and a second impeller (16) with a second pump section (19) that is arranged in a second chamber (20), and a shaft section (25) that is arranged between the pump sections (17, 19), which shaft section (25) comprises a shaft end (26) and passes through an opening (24) of a housing wall (23). According to the invention, in order to improve the net positive suction head of the pump (1), the shaft section (25) is formed in a tapering manner from the shaft end (26) to a necking (27) between the necking (27) and the shaft end (26), and the first impeller (15) and shaft section (25) have a smooth course between the necking (27) and the first pump section (17).

IPC 8 full level
F04D 29/22 (2006.01); **F04D 1/06** (2006.01); **F04D 9/02** (2006.01); **F04D 9/04** (2006.01); **F04D 29/62** (2006.01)

CPC (source: CN EP US)
F04D 1/06 (2013.01 - CN EP US); **F04D 3/02** (2013.01 - US); **F04D 9/02** (2013.01 - CN US); **F04D 9/04** (2013.01 - CN EP US); **F04D 9/041** (2013.01 - CN EP US); **F04D 29/043** (2013.01 - US); **F04D 29/2277** (2013.01 - CN EP US); **F04D 29/62** (2013.01 - CN EP US)

Citation (search report)
See references of WO 2016146523A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
DE 102015003224 A1 20160915; **DE 102015003224 B4 20180208**; **DE 102015003224 C5 20210715**; CN 107407283 A 20171128; CN 107407283 B 20190903; EP 3268616 A1 20180117; EP 3268616 B1 20210106; ES 2860523 T3 20211005; PL 3268616 T3 20210809; US 10544795 B2 20200128; US 2018058466 A1 20180301; WO 2016146523 A1 20160922

DOCDB simple family (application)
DE 102015003224 A 20150313; CN 201680015377 A 20160311; EP 16709450 A 20160311; EP 2016055283 W 20160311; ES 16709450 T 20160311; PL 16709450 T 20160311; US 201615557638 A 20160311