

Title (en)  
SUBMERSIBLE PUMP ASSEMBLY AND METHOD FOR USE OF SAME

Title (de)  
TAUCHPUMPENANORDNUNG UND VERFAHREN ZUR VERWENDUNG DERSELBEN

Title (fr)  
ENSEMBLE POMPE SUBMERSIBLE ET PROCÉDÉ D'UTILISATION ASSOCIÉ

Publication  
**EP 4093971 A4 20240320 (EN)**

Application  
**EP 20915243 A 20201222**

Priority  
• US 202062964935 P 20200123  
• US 2020066685 W 20201222

Abstract (en)  
[origin: WO2021150342A1] A submersible pump assembly (10) for transference of a fluid medium with low viscosity is disclosed. In one embodiment, the submersible pump assembly (10) includes multiple pump units (58, 60, 62) co-axially aligned with a common drive shaft (90), a common suction chamber (92), and a common pressure chamber (94). Each of the pump units (58, 60, 62) includes an active operational mode wherein the fluid medium is transferred from the common suction chamber (92) to the common pressure chamber (94) during as well as an inactive operational mode wherein the fluid medium is circulated through the common suction chamber (92). Each of the pump units (58, 60, 62) is individually actuatable.

IPC 8 full level  
**F04B 23/06** (2006.01); **E21B 43/12** (2006.01); **F04B 1/14** (2020.01); **F04B 1/182** (2020.01); **F04B 1/295** (2020.01); **F04B 15/02** (2006.01); **F04B 23/04** (2006.01); **F04B 23/10** (2006.01); **F04B 47/06** (2006.01); **F04B 49/00** (2006.01); **F04B 49/035** (2006.01); **F04B 49/24** (2006.01)

CPC (source: EP)  
**E21B 43/12** (2013.01); **F04B 1/14** (2013.01); **F04B 1/182** (2013.01); **F04B 1/295** (2013.01); **F04B 15/02** (2013.01); **F04B 23/04** (2013.01); **F04B 23/106** (2013.01); **F04B 47/06** (2013.01); **F04B 49/007** (2013.01); **F04B 49/035** (2013.01); **F04B 49/243** (2013.01)

Citation (search report)  
• [A] US 2013043023 A1 20130221 - HALLUNDBAEK JORGEN [DK]  
• [A] US 7736133 B2 20100615 - MARTINEZ IGNACIO [BR]  
• [A] EP 0840009 B1 20031015 - BOSCH GMBH ROBERT [DE]  
• See also references of WO 2021150342A1

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

DOCDB simple family (publication)  
**WO 2021150342 A1 20210729**; AU 2020424503 A1 20220804; AU 2020424503 B2 20221201; BR 112022013495 A2 20220906; BR 112022013495 B1 20230314; CA 3165640 A1 20210729; CA 3165640 C 20230314; CN 114930021 A 20220819; CN 114930021 B 20230721; EP 4093971 A1 20221130; EP 4093971 A4 20240320; MX 2022008994 A 20221013; SA 522433203 B1 20240109

DOCDB simple family (application)  
**US 2020066685 W 20201222**; AU 2020424503 A 20201222; BR 112022013495 A 20201222; CA 3165640 A 20201222; CN 202080092085 A 20201222; EP 20915243 A 20201222; MX 2022008994 A 20201222; SA 522433203 A 20220630