

Title (en)
MODULAR SYSTEM OF AN AXIALLY INTEGRATED PUMP STRUCTURE

Title (de)
BAUKASTENSYSTEM EINES AXIAL INTEGRIERTEN PUMPENAUFBAUS

Title (fr)
SYSTÈME MODULAIRE D'UNE STRUCTURE DE POMPE AXIALEMENT INTÉGRÉE

Publication
EP 3765712 A1 20210120 (DE)

Application
EP 18826989 A 20181212

Priority
• DE 102018105732 A 20180313
• EP 2018084549 W 20181212

Abstract (en)
[origin: WO2019174773A1] The invention relates to a modular system of a pump structure for the axial integration of a selection of electric drive assemblies (1) on a selection of pump assemblies (2) and a shaft-bearing assembly (3) which comprises a pump shaft (31) and a shaft bearing (32) having at least two rolling bearing rows, wherein the shaft bearing (32) supports the pump shaft (31) between a motor rotor (11) of the electric drive assembly (1) and a pump rotor (21) of the pump assembly (2) on a pump housing (20) of the pump assembly (2); wherein the selection of pump assemblies (2) together has a collar section (23) on the pump housing (20), which receives the shaft bearing (32) in a passage opening of the pump housing (20) and projects toward a receiving side for an electric drive unit (1); and the selection of pump assemblies (2) differs in relation to the pump rotor (21) and/or a pump chamber (22); the selection of drive assemblies (1) together has a motor rotor (11) which is formed on a radially outer section in the form of a rotor bell (13), wherein the rotor bell (13) runs radially around the collar section (23) which each each pump housing (20) from the selection of drive assemblies (1) has together; and the selection of drive assemblies (1) differs in relation to a stator (12); and wherein for each combination from the selection of electric drive assemblies (1) and the selection of pump assemblies (2), at least one radial dimension of the pump shaft, of the shaft bearing, of the collar section (23) and/or the rotor bell (13) is the same.

IPC 8 full level
F01C 21/10 (2006.01); **F04C 11/00** (2006.01); **F04C 15/00** (2006.01)

CPC (source: EP US)
F01C 21/02 (2013.01 - US); **F01C 21/10** (2013.01 - EP); **F04C 11/00** (2013.01 - US); **F04C 11/008** (2013.01 - EP); **F04C 15/0057** (2013.01 - US); **F04D 13/06** (2013.01 - EP); **F04C 2230/24** (2013.01 - EP); **F04C 2240/30** (2013.01 - EP); **F04C 2240/51** (2013.01 - EP); **F04C 2240/70** (2013.01 - EP US); **F04C 2240/808** (2013.01 - EP)

Citation (search report)
See references of WO 2019174773A1

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)
WO 2019174773 A1 20190919; BR 112020015740 A2 20201208; CN 111836946 A 20201027; DE 102018105732 A1 20190919; EP 3765712 A1 20210120; US 2021040949 A1 20210211

DOCDB simple family (application)
EP 2018084549 W 20181212; BR 112020015740 A 20181212; CN 201880090569 A 20181212; DE 102018105732 A 20180313; EP 18826989 A 20181212; US 201816979778 A 20181212