



US 20240235296A1

(19) **United States**

(12) **Patent Application Publication**  
**Curt et al.**

(10) **Pub. No.: US 2024/0235296 A1**

(43) **Pub. Date: Jul. 11, 2024**

(54) **ROTOR SYSTEM FOR PERMANENT  
MAGNET MOTORS POWERING ELECTRIC  
SUBMERSIBLE PUMPS**

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(21) Appl. No.: **18/611,101**

(22) Filed: **Mar. 20, 2024**

**Related U.S. Application Data**

(63) Continuation of application No. 17/022,581, filed on  
Sep. 16, 2020, now Pat. No. 11,962,193.

(60) Provisional application No. 62/901,713, filed on Sep.  
17, 2019.

**Publication Classification**

(51) **Int. Cl.**

**H02K 1/278** (2006.01)

**F04B 17/03** (2006.01)

**H02K 1/279** (2006.01)

**H02K 1/27915** (2006.01)

**H02K 5/128** (2006.01)

**H02K 5/132** (2006.01)

(52) **U.S. Cl.**

CPC ..... **H02K 1/278** (2013.01); **F04B 17/03**

(2013.01); **H02K 1/27915** (2022.01); **H02K**

**5/1285** (2013.01); **H02K 5/132** (2013.01);

**H02K 1/279** (2022.01)

(57)

**ABSTRACT**

Embodiments disclosed herein describe methods for improved permanent magnet motor rotor systems for submersible electric motors. The improved rotor system includes a single piece of material shaft with surface mounted permanent magnets. The single piece of material shaft minimizes the number of shaft bearings and locates the bearings outside of the stator windings.

