

(12) **United States Patent**
Ginsberg et al.

(10) **Patent No.:** **US 10,793,394 B2**
(45) **Date of Patent:** **Oct. 6, 2020**

(54) **WIRELESS COMMUNICATION FOR SELF-PROPELLED ELEVATOR SYSTEM**

(58) **Field of Classification Search**
CPC B66B 1/30; B66B 1/3446; B66B 1/3461; B66B 1/3492

(71) Applicant: **Otis Elevator Company**, Farmington, CT (US)

(Continued)

(72) Inventors: **David Ginsberg**, Granby, CT (US);
Dang V. Nguyen, South Windsor, CT (US)

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,654,531 A * 8/1997 Farabee B66B 1/18
187/247

5,682,024 A * 10/1997 Koopman, Jr. B66B 1/50
187/283

(73) Assignee: **OTIS ELEVATOR COMPANY**, Farmington, CT (US)

(Continued)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 498 days.

FOREIGN PATENT DOCUMENTS

(21) Appl. No.: **15/547,920**

CN 1462718 A 12/2003
CN 101219744 A 7/2008
WO 2014113006 A1 7/2014

(22) PCT Filed: **Feb. 2, 2016**

OTHER PUBLICATIONS

(86) PCT No.: **PCT/US2016/016137**

§ 371 (c)(1),
(2) Date: **Aug. 1, 2017**

International Search Report and Written Opinion for application PCT/US2016/016137, dated May 30, 2016, 12pgs.

(Continued)

(87) PCT Pub. No.: **WO2016/126686**

PCT Pub. Date: **Aug. 11, 2016**

Primary Examiner — David S Warren

(74) *Attorney, Agent, or Firm* — Cantor Colburn LLP

(65) **Prior Publication Data**

US 2018/0022575 A1 Jan. 25, 2018

Related U.S. Application Data

(60) Provisional application No. 62/112,261, filed on Feb. 5, 2015.

(51) **Int. Cl.**
B66B 1/30 (2006.01)
B66B 1/34 (2006.01)

(Continued)

(52) **U.S. Cl.**
CPC **B66B 1/30** (2013.01); **B66B 1/3446** (2013.01); **B66B 1/3461** (2013.01);

(Continued)

(57) **ABSTRACT**

A self-propelled elevator system includes a hoistway (11) including a plurality of drives (40), wherein each of the plurality of drives includes a stationary portion (16) of a propulsion system and a controller (30) configured to operate the stationary portion of the propulsion system. The propelled elevator system also includes an elevator car ((14), 42) comprising a processor (44) and a transceiver (48), wherein the transceiver is configured to communicate with the controllers of one or more of the plurality of drives that are adjacent to the elevator car and one or more sensors (46) disposed on the elevator car, wherein the processor is configured to receive signals from the one or more sensors.

(Continued)

