

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
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EPAS ID: PAT4786984

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST

**CONVEYING PARTY DATA**

Name	Execution Date
WARREN ENGINE COMPANY, INC.	09/28/2017

**RECEIVING PARTY DATA**

<b>Name:</b>	EMERSON COLLECTIVE INVESTMENTS, LLC
<b>Street Address:</b>	2200 GENG ROAD, SUITE 100
<b>City:</b>	PALO ALTO
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94303

**PROPERTY NUMBERS Total: 13**

Property Type	Number
Patent Number:	8113164
Patent Number:	9249693
Patent Number:	7779795
Patent Number:	7448352
Patent Number:	7004120
Patent Number:	9708910
Application Number:	14531921
Application Number:	62349346
Application Number:	15621711
Application Number:	62419188
Application Number:	15650844
Application Number:	13436833
PCT Number:	US1737275

**CORRESPONDENCE DATA**

**Fax Number:** (415)947-2099

*Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*

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**PATENT**

**Address Line 4:** SAN FRANCISCO, CALIFORNIA 94105

**ATTORNEY DOCKET NUMBER:** 46733.012

**NAME OF SUBMITTER:** QUI LU FLOOD

**SIGNATURE:** /Qui Lu Flood/

**DATE SIGNED:** 01/22/2018

**Total Attachments: 5**

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**AMENDED AND RESTATED GRANT OF SECURITY INTEREST  
IN PATENTS**

THIS AMENDED AND RESTATED GRANT OF SECURITY INTEREST, dated as of September 28, 2017, is executed by **Warren Engine Company, Inc.**, a Virginia corporation (together with its successors and assigns, "Grantor"), in favor of **Emerson Collective Investments, LLC** ("Secured Party"). All capitalized terms not otherwise defined herein shall have the respective meanings given in the Security Agreement (defined below). This Grant of Security Interest amends and restates that certain Grant of Security Interest, dated as of November 17, 2015 (the "Prior IP Security Agreement").

Recitals

A. In connection with that certain Amended and Restated Security Agreement, dated as of September 28, 2017 (as amended from time to time, the "Security Agreement") by and among Grantor and Secured Party, Grantor granted to Secured Party a security interest in the assets of Grantor;

B. Grantor owns the patents, and/or applications for patent, of the United States, more particularly described on Schedule A annexed hereto as part hereof (collectively, the "Patents"); and

C. Schedule A hereof constitutes a complete list, as of the date hereof, of registrations or applications for registrations of Patents in or to which Grantor has any right, title, interest, claim or demand. After the date of the Security Agreement, the terms and provisions of which are hereby incorporated herein as if fully set forth herein, Grantor shall provide written notice to Secured Party, in accordance with the provisions of the Security Agreement, of any addition or change which is necessary to be made to Schedule A in order to maintain such schedule's completeness or accuracy.

Agreement

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, Grantor does hereby further grant to Secured Party a security interest in the Collateral to secure the prompt payment, performance and observance of the Obligations.

1. Grantor hereby grants to Secured Party a security interest to secure the prompt payment, performance and observance of the Obligation in all right, title and interest of Grantor in and to the following property (collectively, the "Collateral");

a. all Patents, together with any reissue, continuation, continuation-in-part or extension thereof, and all proceeds thereof (now or hereafter due or payable), including any and all causes of action which may exist or arise from time to time by reason of infringement thereof for the full term of the Patents.

2. Grantor does hereby authorize the Patent Division of the United States Patent and Trademark Office and any other government officials to record and register this Grant of Security Interest upon request by the Secured Party.


3. Grantor does hereby further acknowledge and affirm that the rights and remedies of Secured Party with respect to the security interest in the Collateral granted hereby are more fully set forth in the Security Agreement.

4. This agreement constitutes an amendment and restatement of, and replacement and substitution for, the Prior IP Security Agreement. The indebtedness described in the Prior IP Security Agreement is continuing indebtedness evidenced hereby as amended, and nothing herein shall be deemed to constitute a payment, settlement or novation of the Prior IP Security Agreement, or to release or otherwise adversely affect any lien, mortgage, or security interest securing such indebtedness or any rights of the Secured Party against any person liable for such indebtedness.

*[Remainder of Page Intentionally Left Blank]*

IN WITNESS WHEREOF, Grantor has caused this instrument to be executed as of the day and year first above written.

WARREN ENGINE COMPANY, INC.

By:  \_\_\_\_\_

Name: Steve Niswander \_\_\_\_\_

Title: President \_\_\_\_\_

SCHEDULE A

PATENTS

Title	Date Issued	U.S. Patent No.
Ignition Source Adapted For Positioning Within A Combustion Chamber	February 14, 2012  (Transferred from James C. Warren on November 10, 2015; Assignment No. 6045-00001)	8,113,164
Opposed Piston Diesel Engine	February 2, 2016  (Transferred from James C. Warren on November 10, 2015; Assignment No. 6045-01002)	9,249,693
Valve System for Opposed Piston Engines	August 24, 2010	7,779,795
Centrally Located Ignition Source in a Combustion Chamber	November 11, 2008	7,448,352
Opposed Piston Engine	February 28, 2006	7,004,120  Lapsed on 2/28/2010 for non-payment of maintenance fees
Inwardly Opposed Pistons, Fixed Position Common Cylinder Engine with External Induction	July 18, 2017	9,708,910

PATENT APPLICATIONS

Title	Application Filing Date	U.S. Application No.
Opposed Piston Engine And Elements Thereof	November 3, 2014 (Transferred from James C. Warren on November 10, 2015; Assignment No. 6045-01002)	14/531,921
Energy Recovery System CHP Combined Heat and Power	June 13, 2016	62/349,346
	June 13, 2017	15/621,711
	June 13, 2017	PCT/US17/37275
Energy Recovery System CHP Cross Reference	November 8, 2016	62/419,188
Opposed Piston Engine with Improved Piston Surfaces	July 14, 2017	15/650,844
Opposed Piston Engine With Variable Compression Ratio	March 30, 2012	13/436,833