

PATENT ASSIGNMENT

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Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Yi Qu</td> <td>08/09/2013</td> </tr> <tr> <td>Bruce Perkins</td> <td>08/09/2013</td> </tr> <tr> <td>Mark Olsen</td> <td>08/09/2013</td> </tr> </tbody> </table>		Name	Execution Date	Yi Qu	08/09/2013	Bruce Perkins	08/09/2013	Mark Olsen	08/09/2013		
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>Lennox Industries Inc.</td> </tr> <tr> <td>Street Address:</td> <td>2140 Lake Park Blvd.</td> </tr> <tr> <td>City:</td> <td>Richardson</td> </tr> <tr> <td>State/Country:</td> <td>TEXAS</td> </tr> <tr> <td>Postal Code:</td> <td>75080</td> </tr> </table>		Name:	Lennox Industries Inc.	Street Address:	2140 Lake Park Blvd.	City:	Richardson	State/Country:	TEXAS	Postal Code:	75080
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PROPERTY NUMBERS Total: 1											
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CORRESPONDENCE DATA											
<p>Fax Number:</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Email: ipdocketing@kk-llp.com</p> <p>Correspondent Name: Klemchuk Kubasta LLP</p> <p>Address Line 1: 8150 North Central Expressway</p> <p>Address Line 2: 10th floor</p> <p>Address Line 4: Dallas, TEXAS 75206</p>											
ATTORNEY DOCKET NUMBER:	1655.1500										
NAME OF SUBMITTER:	Shannon W. Bates										
Signature:	/Shannon W. Bates/										
Date:	08/13/2013										
<p>Total Attachments: 2</p> <p>source=Patent Assignment_1655_1500#page1.tif</p> <p>source=Patent Assignment_1655_1500#page2.tif</p>											

OP \$40.00 13965543

ASSIGNMENT

IN CONSIDERATION OF TEN DOLLARS (\$10.00) and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, we, Yi Qu, Bruce Perkins, and Mark Olsen ("ASSIGNORS"), being joint inventors and having made an invention in DEFROST OPERATION MANAGEMENT IN HEAT PUMPS while in the employ of Lennox Industries Inc., a corporation organized and existing under the laws of the State of Texas, with a mailing address of 2140 Lake Park Blvd., Richardson, Texas 75080 (sometimes hereinafter called "ASSIGNEE"), do hereby ASSIGN, SELL and CONVEY to said ASSIGNEE, its successors and assigns, the entire right, title and interest throughout the world in and to:

1. Said invention in DEFROST OPERATION MANAGEMENT IN HEAT PUMPS;
2. United States of America non-provisional patent application on said invention, filed as U.S. Patent Application Serial No. 13/965,543 on August 13, 2013 (Attorney's File No. P130011; 1655.1500), entitled DEFROST OPERATION MANAGEMENT IN HEAT PUMPS;
3. All applications for patent or like protection on said invention that have now been or may in the future be made by us or our legal representatives, including any continuation, continuation-in-part and any other utility applications that may be based on this invention, whether in the United States of America or any other place anywhere in the world;
4. All patents and like protection that have now been or may in the future be granted on said invention to us or our legal representatives, whether in the United States of America or in any other country or place anywhere in the world;
5. All substitutions for and divisions, continuations, continuations-in-part, renewals, reissues, extensions, and the like of said applications and patents and like grants, including without limitations, those obtained or permissible under past, present and future law and statutes;

6. All rights of action on account of past, present and future unauthorized use of said invention for infringement of said patents and like protection;
7. The right to ASSIGNEE to file in its name applications for patents and like protection for said invention in the United States and in any country or countries foreign to the United States; and
8. All international rights of priority associated with said invention, applications, patents and like protection;

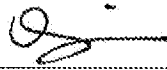
and we covenant that we, our heirs, legal representatives, assigns, administrators, and executors will at the expense of ASSIGNEE, its successors and assigns, execute all papers and perform such other acts as may be reasonably necessary to give ASSIGNEE, its successors and assigns, the full benefit of this Assignment.

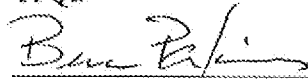
EXECUTED at Carrollton, Texas on the date indicated below, opposite my signature.

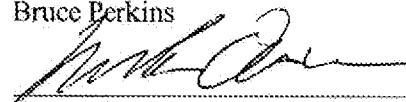
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Yi Qu


Bruce Perkins


Mark Olsen