

## PATENT ASSIGNMENT

Electronic Version v1.1  
 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>Alan K. Williams</td> <td>10/18/2012</td> </tr> <tr> <td>Chad A. Barnes</td> <td>10/18/2012</td> </tr> </tbody> </table>		Name	Execution Date	Alan K. Williams	10/18/2012	Chad A. Barnes	10/18/2012				
Name	Execution Date										
Alan K. Williams	10/18/2012										
Chad A. Barnes	10/18/2012										
RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>Toyota Motor Engineering &amp; Manufacturing North America, Inc.</td> </tr> <tr> <td>Street Address:</td> <td>25 Atlantic Avenue</td> </tr> <tr> <td>City:</td> <td>Erlanger</td> </tr> <tr> <td>State/Country:</td> <td>KENTUCKY</td> </tr> <tr> <td>Postal Code:</td> <td>41018</td> </tr> </table>		Name:	Toyota Motor Engineering & Manufacturing North America, Inc.	Street Address:	25 Atlantic Avenue	City:	Erlanger	State/Country:	KENTUCKY	Postal Code:	41018
Name:	Toyota Motor Engineering & Manufacturing North America, Inc.										
Street Address:	25 Atlantic Avenue										
City:	Erlanger										
State/Country:	KENTUCKY										
Postal Code:	41018										
PROPERTY NUMBERS Total: 1											
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13655770</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13655770						
Property Type	Number										
Application Number:	13655770										
CORRESPONDENCE DATA											
<p>Fax Number: 2486475210  <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 248-647-6000        Email: crichard@patlaw.com        Correspondent Name: Gifford, Krass et al.        Address Line 1: P.O. Box 7021        Address Line 4: Troy, MICHIGAN 48007-7021</p>											
ATTORNEY DOCKET NUMBER:	TTC12-01802/08										
NAME OF SUBMITTER:	Mark A. Harper, Ph.D.										
<p>Total Attachments: 3        source=13655770_Assignment#page1.tif        source=13655770_Assignment#page2.tif        source=13655770_Assignment#page3.tif</p>											

OP \$40.00 13655770

## ASSIGNMENT BY INVENTORS

**THIS ASSIGNMENT**, made this 18<sup>th</sup> day of October, 2012, by Alan K. Williams and Chad A. Barnes (hereinafter referred to as Assignors), residing at 6436 Summer Court, West Bloomfield, Michigan 48332; and 173 Commons Circle, Saline, Michigan 48176, respectively;

**WHEREAS**, Assignors have invented certain new and useful improvements in OIL FILLED HEATER CORE, set forth in a Utility application for Letters Patent of the United States, filed herewith; and

**WHEREAS**, Toyota Motor Engineering & Manufacturing North America, Inc., a Corporation organized under and pursuant to the laws of Kentucky having its principal place of business at 25 Atlantic Avenue, Erlanger, Kentucky 41018 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

**NOW, THEREFORE**, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefor and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and assignment not been made.

**AND** for the same consideration, Assignors hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignors are the sole and lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

**AND** for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Utility application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

**AND** Assignors hereby request the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

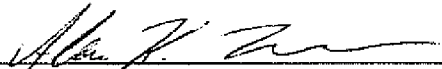
**AND** Assignors hereby grant the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document:

GIFFORD, KRASS, SPRINKLE, ANDERSON & CITKOWSKI, P.C.


All practitioners at Customer Number 63796

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.

Date: 10/18/2012

Signature:   
Alan K. Williams

Date: 10/18/2012

Signature:   
Chad A. Barnes