PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------|----------------|
| THANH D. PHAM | 10/03/2013 |
| JESUS CARDOSO | 10/02/2013 |
| BETH ANN DALRYMPLE | 10/02/2013 |
| LUIS LOPEZ | 10/02/2013 |

RECEIVING PARTY DATA

| Name: | FORD GLOBAL TECHNOLOGIES, LLC |
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| Street Address: | FAIRLANE PLAZA SOUTH, SUITE 800 |
| Internal Address: | 330 TOWN CENTER DRIVE |
| City: | DEARBORN |
| State/Country: | MICHIGAN |
| Postal Code: | 48126 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14045897 |

CORRESPONDENCE DATA

Fax Number: (248)358-3351

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

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Email: solson@brookskushman.com
Correspondent Name: BROOKS KUSHMAN P.C./FGTL

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Address Line 2: 22ND FLOOR

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| ATTORNEY DOCKET NUMBER: | 83384063 |
|-------------------------|-----------------|
| NAME OF SUBMITTER: | TODD W. DISHMAN |
| | PATENT |

502520952 REEL: 031345 FRAME: 0651

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| Signature: | /Todd W. Dishman/ |
|--|-------------------|
| Date: | 10/04/2013 |
| Total Attachments: 4 source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif source=Assignment#page4.tif | |

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| Attorney Docket Number | 83384063 | |
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ASSIGNMENT AND DECLARATION (37 C.F.R. 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76)

| title of invention | BATTERY COOLING APPARATUS | |
|--|--|--|
| This declaration is directed to: | | |
| United | tached application, or States application or PCT international application number | |
| The above-identified app | lication was made or authorized to be made by me. | |
| I hereby state that I have including the claims. | e reviewed and understand the contents of the specification in the above-identified application, | |
| I believe that I am the ori | ginal inventor or an original joint inventor of a claimed invention in the application. | |
| continuation-in-part app | disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for lications, material information which became available between the filing date of the prior nal or PCT international filing date of the continuation-in-part application. | |
| FORD GLOBAL TECHT of the State of Delaware hereinafter referred to as interest, domestic and for of the ASSIGNEE, its sufor the inventions and disname or names, or in my insert the serial/applicated ASSIGNEE, its success applications, in and to the | nent agreement heretofore made or by contractual obligation, I do sell, assign and set over unto NOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws having its principal place of business at Dearborn, County of Wayne, and State of Michigan, the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and reign, in and to the inventions and discoveries in the above-identified invention including the right accessors, assigns or other legal representatives to make applications and to receive Letters Patent acoveries in any and all countries, entities and intergovernmental organizations, in its or their own name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to ion number and filing date of the application to receive Letters Patent herein: Serial No. —, Filing Date ———————————————————————————————————— | |
| including applications for organizations, and to per- | nyself, my heirs, successors, assigns or other legal representatives to execute any and all papers, r Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental form any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives occure thereto the rights herein sold, assigned and set over. | |
| And I hereby represent an | d warrant that I have not granted any rights inconsistent with the rights granted herein. | |
| or imprisonment of not m | at any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine ore than five (5) years or both. | |
| LEGAL NAME OF INVI | | |
| | ich Dhar | |
| | | |
| | Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form: form for each additional inventor. | |

Please direct all correspondence to: 28395

| Attorney Docket Number | 83384063 |
|------------------------|----------|
| | |

ASSIGNMENT AND DECLARATION (37 C.F.R. 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76)

| Title of Inventi | on | BATTERY COOLING APPARATUS | |
|---|--|--|--|
| This declaration is directed to: | | | |
| X | The at | tached application, or I States application or PCT international application numberfiled on | |
| The above-identi | fied app | olication was made or authorized to be made by me. | |
| | I hereby state that I have reviewed and understand the contents of the specification in the above-identified application, including the claims. | | |
| I believe that I an | n the or | iginal inventor or an original joint inventor of a claimed invention in the application. | |
| I am aware of the duty to disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application. | | | |
| Pursuant to my employment agreement heretofore made or by contractual obligation, I do sell, assign and set over unto FORD GLOBAL TECHNOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws of the State of Delaware, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, hereinafter referred to as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and interest, domestic and foreign, in and to the inventions and discoveries in the above-identified invention including the right of the ASSIGNEE, its successors, assigns or other legal representatives to make applications and to receive Letters Patent for the inventions and discoveries in any and all countries, entities and intergovernmental organizations, in its or their own name or names, or in my name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to insert the serial/application number and filing date of the application to receive Letters Patent herein: Serial No. | | | |
| And I hereby agree for myself, my heirs, successors, assigns or other legal representatives to execute any and all papers, including applications for Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental organizations, and to perform any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives may deem necessary to secure thereto the rights herein sold, assigned and set over. | | | |
| And I hereby represent and warrant that I have not granted any rights inconsistent with the rights granted herein. | | | |
| I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years or both. | | | |
| LEGAL NAME | OF INV | VENTOR Indiana | |
| Inventor: <u>J</u> | esus C | Cardoso Date: 10/2/2013 | |
| Signature: | | | |
| | a de la compansión de l | | |
| Note: An Applica | ation Da | ata Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. | |

| Attorney Docket Number | 83384063 |
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| Attorney Docket I tunious | 0000000 |

ASSIGNMENT AND DECLARATION (37 C.F.R. 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76)

| Title of Invention | DI BATTERY COOLING APPARATUS | |
|--|--|--|
| This declaration is directed to: | | |
| X. | The attached application, or United States application or PCT international application numberfiled on | |
| The above-identifi | ied application was made or authorized to be made by me. | |
| I hereby state that including the claim | t I have reviewed and understand the contents of the specification in the above-identified application, ns. | |
| I believe that I am | the original inventor or an original joint inventor of a claimed invention in the application. | |
| I am aware of the duty to disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application. | | |
| Pursuant to my employment agreement heretofore made or by contractual obligation, I do sell, assign and set over unto FORD GLOBAL TECHNOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws of the State of Delaware, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, hereinafter referred to as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and interest, domestic and foreign, in and to the inventions and discoveries in the above-identified invention including the right of the ASSIGNEE, its successors, assigns or other legal representatives to make applications and to receive Letters Patent for the inventions and discoveries in any and all countries, entities and intergovernmental organizations, in its or their own name or names, or in my name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to insert the serial/application number and filing date of the application to receive Letters Patent herein: Serial No. ——————————————————————————————————— | | |
| And I hereby agree for myself, my heirs, successors, assigns or other legal representatives to execute any and all papers, including applications for Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental organizations, and to perform any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives may deem necessary to secure thereto the rights herein sold, assigned and set over. | | |
| And I hereby represent and warrant that I have not granted any rights inconsistent with the rights granted herein. | | |
| I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years or both. | | |
| LEGAL NAME C | DE INVENTOR | |
| Inventor: Be | eth Ann Dalrymple Date: Det 7, 2015 | |
| Signature: 📙 | eth An Dahyux & | |
| Note: An Applicat | Note: An Application Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. | |
| Limene additional de | ACIGRATION FOR MICHAEL | |

| Attorney Docket Number | 83384063 | |
|------------------------|----------|--|

ASSIGNMENT AND DECLARATION (37 C.F.R. 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76)

| Title of Invention | BATTERY COOLING APPARATUS | |
|--|--|--|
| This declaration is directed to: | | |
| | | |
| X The att | lached application, or States application or PCT international application number filed on | |
| The above-identified app | lication was made or authorized to be made by me. | |
| I hereby state that I have including the claims. | e reviewed and understand the contents of the specification in the above-identified application, | |
| | iginal inventor or an original joint inventor of a claimed invention in the application. | |
| I am aware of the duty to disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application. | | |
| Pursuant to my employment agreement heretofore made or by contractual obligation, I do sell, assign and set over unto FORD GLOBAL TECHNOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws of the State of Delaware, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, hereinafter referred to as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and interest, domestic and foreign, in and to the inventions and discoveries in the above-identified invention including the right of the ASSIGNEE, its successors, assigns or other legal representatives to make applications and to receive Letters Patent for the inventions and discoveries in any and all countries, entities and intergovernmental organizations, in its or their own name or names, or in my name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to insert the serial/application number and filing date of the application to receive Letters Patent herein: Serial No. ——————————————————————————————————— | | |
| And I hereby agree for myself, my heirs, successors, assigns or other legal representatives to execute any and all papers, including applications for Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental organizations, and to perform any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives may deem necessary to secure thereto the rights herein sold, assigned and set over. | | |
| • | and warrant that I have not granted any rights inconsistent with the rights granted herein. | |
| I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years or both. | | |
| LIEGAL NAME OF INVENTOR | | |
| Inventor: Luis Lor | | |
| | | |
| Signature: | | |
| Note: An Application Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. | | |
| Use an additional declaration form for each additional inventor. | | |

PATENT REEL: 031345 FRAME: 0656

RECORDED: 10/04/2013