505740751 10/25/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5787564

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

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------------|----------------|
| AJAY KUMAR GUPTA | 08/14/2013 |
| NARAYANA VENUGOPAL | 08/14/2013 |
| JOHN CHARLES CARIS | 08/14/2013 |
| MARK WLOTKOWSKI | 08/14/2013 |
| CHARLES KO | 08/14/2013 |
| LEONARD ANTHONY SHANER | 08/14/2013 |

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16663411 |

CORRESPONDENCE DATA

Fax Number:

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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Address Line 4: SOUTHFIELD, MICHIGAN 48075

| ATTORNEY DOCKET NUMBER: | 84216118(65080-1653D5) |
|-------------------------|--------------------------|
| NAME OF SUBMITTER: | CHRISTOPHER M. FRANCIS |
| SIGNATURE: | /Christopher M. Francis/ |
| DATE SIGNED: | 10/25/2019 |

505740751 REEL: 050831 FRAME: 0897

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Total Attachments: 6

source=84216118 - Signed Combined Declaration and Assignment - all-6-inventors (65080-1653D5)#page1.tif source=84216118 - Signed Combined Declaration and Assignment - all-6-inventors (65080-1653D5)#page2.tif source=84216118 - Signed Combined Declaration and Assignment - all-6-inventors (65080-1653D5)#page3.tif source=84216118 - Signed Combined Declaration and Assignment - all-6-inventors (65080-1653D5)#page4.tif source=84216118 - Signed Combined Declaration and Assignment - all-6-inventors (65080-1653D5)#page5.tif source=84216118 - Signed Combined Declaration and Assignment - all-6-inventors (65080-1653D5)#page6.tif

Please direct all correspondence to:

113140

| | | Attorney Docket Number 83375453 (65080-1049) |
|--|---|---|
| | | (37 C.F.R. 1.63) FOR UTILITY OR DESIGN CATION DATA SHEET (37 C.F.R. 1.76) |
| Title of Invention | VEHICLE FRAME COM | PONENT |
| This declaration is dir | ected to: | |
| ∑ Uni | attached application, or ted States application or PCT internation of | itional application number for August 14, 2013 |
| The above-identified | application was made or authorized t | o be made by me. |
| I hereby state that I including the claims. | have reviewed and understand the | contents of the specification in the above-identified application, |
| I believe that I am the | original inventor or an original joint | inventor of a claimed invention in the application. |
| continuation-in-part | epplications, material information | aterial to patentability as defined in 37 C.F.R. 1.56, including for which became available between the filing date of the prior e of the continuation-in-part application. |
| FORD GLOBAL TEG of the State of Delay hereinafter referred to interest, domestic and of the ASSIGNEE, it for the inventions and name or names, or in insert the serial/appl 13/966,790 ASSIGNEE, its successibilities. | CHNOLOGIES, LLC, a Ford Motor vare, having its principal place of to as the ASSIGNEE, its successors, foreign, in and to the inventions and successors, assigns or other legal to discoveries in any and all countries my name, at its or their election (and ication number and filing date of Filing Date August 14, 2 tessors, assigns or other legal reports the inventions and discoveries in a tions claiming benefit of the filing | or by contractual obligation, I do sell, assign and set over unto Company subsidiary, organized and existing by virtue of the laws usiness at Dearborn, County of Wayne, and State of Michigan, assigns or other legal representatives, the entire right, title and discoveries in the above-identified invention including the right epresentatives to make applications and to receive Letters Patent, entities and intergovernmental organizations, in its or their own d I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to the application to receive Letters Patent herein: Serial No. 013 |
| including applications organizations, and to | for Letters Patent of any and all k | igns or other legal representatives to execute any and all papers, inds and in any and all countries, entities and intergovernmental ASSIGNEE, its successors, assigns or other legal representatives d, assigned and set over. |
| And I hereby represer | s and warrant that I have not granted | any rights inconsistent with the rights granted herein. |
| or imprisonment of no | ot more than five (5) years or both. | de in this declaration is punishable under 18 U.S.C. 1001 by fine |
| LEGAL NAME OF I Inventor: <u>Ajay N</u> | NVENTOR Zumar Gupta | Date: <u>8-14-2013</u> |
| Signature: | n 6 M | * |

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.

Please direct all correspondence to:

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| 1 | 4 | Docket Number | 04084460 | (25000 1040) |
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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 Inven | ion | VEHICLE FRAME COMPONENT |
|--|---|--|
| This declaration | is direc | ed to: |
| | Linited | tacked application, or I States application or PCT international application number 56,790 filed on August 14, 2013 |
| The above-ident | ified app | olication was made or authorized to be made by me. |
| I hereby state the including the cla | | ve reviewed and understand the contents of the specification in the above-identified application, |
| I believe that I a | m the or | iginal inventor or an original joint inventor of a claimed invention in the application. |
| continuation-in- | part app | o disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for olications, 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 of the State of hereinafter refer interest, domesti of the ASSIGNI for the inventior name or names, insert the seria | TECH Delawar red to a c and fo EE, its s as and d or in m l/applica | ment 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 e, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, is 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 successors, assigns or other legal representatives to make applications and to receive Letters Patent iscoveries in any and all countries, entities and intergovernmental organizations, in its or their own y name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's autorney to also number and filing date of the application to receive Letters Patent herein: Serial No., Filing Date August 14, 2013), and I hereby sell, assign and set over to the |
| applications, in | and to tl oplicatio | Filing Date August 14, 2013), and I hereby sell, assign and set over to the sors, assigns or other legal representatives, all rights of priority, including any provisional ne inventions and discoveries in any and all countries, entities and intergovernmental organizations are claiming benefit of the filing date hereof, continuations, continuations-in-part, divisionals, the applications. |
| including applic organizations, a | ations f nd to pe | myself, my heirs, successors, assigns or other legal representatives to execute any and all papers, or Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental rform any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives secure thereto the rights herein sold, assigned and set over. |
| And I hereby rep | resent a | nd warrant that I have not granted any rights inconsistent with the rights granted herein. |
| | | nat any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine more than five (5) years or both. |
| LEGAL NAME | | TO STATE OF THE ST |
| Inventor: 1 | yarayana | i Venugopal Date: 2/14//3 |
| Signature: | <u></u> | <u> </u> |
| | | a Sheet (PTO/Sh-44 or equivalent), including naming the entire inventive entity, must accompany this form. on form for each additional inventor. |

Please direct all correspondence to:

113140

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 Invent | ion VEHICLE FRAME COMPONENT |
|---|---|
| This declaration | is directed to: |
| [**] [X] | The attached application, or United States application or PCT international application number 13/966,790 filed on August 14, 2013 |
| The above-identi | fied application was made or authorized to be made by me. |
| I hereby state th including the clai | at I have reviewed and understand the contents of the specification in the above-identified application, ms. |
| I believe that I ar | n the original inventor or an original joint inventor of a claimed invention in the application. |
| continuation-in-p | e duty to disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for art applications, material information which became available between the filing date of the prior ne national or PCT international filing date of the continuation-in-part application. |
| FORD GLOBAL of the State of I hereinafter refer interest, domestic of the ASSIGNE for the invention name or names, insert the serial | employment agreement heretofore made or by contractual obligation, I do sell, assign and set over unto TECHNOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws Delaware, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, ed to as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and and foreign, in and to the inventions and discoveries in the above-identified invention including the right E, its successors, assigns or other legal representatives to make applications and to receive Letters Patent and discoveries in any and all countries, entities and intergovernmental organizations, in its or their own or in my name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to application number and filing date of the application to receive Letters Patent herein: Serial No. |
| ASSIGNEE, its applications, in a including all ap | successors, assigns or other legal representatives, all rights of priority, including any provisional and to the inventions and discoveries in any and all countries, entities and intergovernmental organizations plications claiming benefit of the filing date hereof, continuations, continuations-in-part, divisionals, and reissue applications. |
| including applications, and | ree for myself, my heirs, successors, assigns or other legal representatives to execute any and all papers, ations for Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental d to perform any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives sary to secure thereto the rights herein sold, assigned and set over. |
| And I hereby rep | resent and warrant that I have not granted any rights inconsistent with the rights granted herein. |
| | ledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine of not more than five (5) years or both. |
| LEGAL NAME | |
| Inventor:Jo | ohn Charles Caris Date: 8-14-2013 |
| Signature: | //pr /pules lasis |
| | |
| | tion Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. |

Please direct all correspondence to:

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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 VEHICLE FRAME COMPONENT |
|--|
| This declaration is directed to: |
| [:] The attached application, or United States application or PCT international application number 13/966,790 filed on August 14, 2013 |
| The above-identified application 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 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. 13/966,790 |
| 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 INVENTOR Inventor: Mark Wiotkowski Date: Avg. 14, 20/3 |
| |
| 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. |

Please direct all correspondence to:

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| | ENT AND DECLARATION (37 C.F.R. 1.63) FOR UTILITY OR DESIGN CATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76) |
|---|--|
| Title of Invention | VEHICLE FRAME COMPONENT |
| This declaration is di | rected to: |
| ∏ Th | e attached application, or |
| ⊠ Ur | nited States application or PCT international application number 13/966,790 filed on August 14, 2013 |
| The above-identified | application was made or authorized to be made by me. |
| I hereby state that I including the claims. | have reviewed and understand the contents of the specification in the above-identified application, |
| I believe that I am th | e original inventor or an original joint inventor of a claimed invention in the application. |
| continuation-in-part | ty to disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for applications, material information which became available between the filing date of the prior ational or PCT international filing date of the continuation-in-part application. |
| FORD GLOBAL TE of the State of Dela hereinafter referred interest, domestic an of the ASSIGNEE, i for the inventions an name or names, or it insert the serial/app 13/966,790 ASSIGNEE, its state applications, in and | loyment agreement heretofore made or by contractual obligation, I do sell, assign and set over unto CHNOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws ware, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, to as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and d foreign, in and to the inventions and discoveries in the above-identified invention including the right its successors, assigns or other legal representatives to make applications and to receive Letters Patent d discoveries in any and all countries, entities and intergovernmental organizations, in its or their own a my name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to dication number and filing date of the application to receive Letters Patent herein; Serial No. ——————————————————————————————————— |
| including application organizations, and to | for myself, my heirs, successors, assigns or other legal representatives to execute any and all papers, as for Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental perform any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives to secure thereto the rights herein sold, assigned and set over. |
| And I hereby represe | and warrant that I have not granted any rights inconsistent with the rights granted herein. |
| | ge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine not more than five (5) years or both. |
| LEGAL NAME OF | INVENTOR \$\int \lambda /_1 \rangle \rangle |
| Inventor: Char | es_Ko Date: |
| Signature: 5 | |
| Note: An Application | Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. |
| Use an additional decl | aration form for each additional inventor. |

Please direct all correspondence to:

Use an additional declaration form for each additional inventor.

RECORDED: 10/25/2019

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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) VEHICLE FRAME COMPONENT Title of Invention This declaration is directed to: The attached application, or United States application or PCT international application number 13/966,790 filed on August 14, 2013 filed on August 14, 2013 The above-identified application 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 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. 13/966,790 Filing Date August 14, 2013, and I hereby sell, assign and set over to the ASSIGNEE, its successors, assigns or other legal representatives, all rights of priority, including any provisional applications, in and to the inventions and discoveries in any and all countries, entities and intergovernmental organizations including all applications claiming benefit of the filing date hereof, continuations, continuations-in-part, divisionals, reexaminations and reissue applications. 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 INVENTOR Leonape Anthony Shaner Date: Inventor: Signature: Note: An Application Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form.