503812496 05/04/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3859144

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

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------------|----------------|
| KENNETH JAMES MILLER | 03/09/2016 |
| THOMAS G. LEONE | 03/01/2016 |
| DOUGLAS RAYMOND MARTIN | 02/26/2016 |

RECEIVING PARTY DATA

| Name: | FORD GLOBAL TECHNOLOGIES, LLC |
|-------------------|---------------------------------|
| 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: | 15146687 |

CORRESPONDENCE DATA

Fax Number: (503)459-4142

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.

Phone: 503-459-4141

Email: enabnit@ahmrt.com

Correspondent Name: ALLEMAN HALL MCCOY RUSSELL & TUTTLE, LLP

Address Line 1:806 S.W. BROADWAY, SUITE 600Address Line 4:PORTLAND, OREGON 97205

| ATTORNEY DOCKET NUMBER: | 83630515 |
|-------------------------|-----------------|
| NAME OF SUBMITTER: | JIBEK ENABNIT |
| SIGNATURE: | /Jibek Enabnit/ |
| DATE SIGNED: | 05/04/2016 |

Total Attachments: 3

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PATENT 503812496 REEL: 038459 FRAME: 0157

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

| Title of Invention | METHOD AND SYSTEM FOR ENGINE CONTROL |
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| The declaration is entered to | |
| The attached applicas United States applicas | ion, or an extractional application number filed on |
| The above identified application was more | ade or sutherized to be made by me |
| I have by some that I have reviewed an obtaining the course. | If orderstand the contents of the specification is the ansverse of the application |
| I believe that I am the original inventor of | or an original print assessor of a claused invention in the application |
| CONDUCTION OF DESCRIPTION OF THE | motion which is material to paternal thy as defined in $T \in \mathbb{R}^n$ in S_n regarding for the information which describes supplied between the filtre date of the continuous in spart application. |
| | here done in agree in a contract of chief point. The set of some of the set o |
| | A secretary appropriate best representative to execute any and an paper of any and all kinds on a part of a country of any and all appropriate to the appropriate to |
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| | the statement made in the declaration is provided to such 18 (S.C., pp.) to such years on both. Since 3/9/20/6 |
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PATENT REEL: 038459 FRAME: 0158

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| Attorney Docket Number | 83630515 |
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ASSIGNMENT AND DECLARATION (37 C.F.R. 1.63) FOR UTILITY, PROVISIONAL OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76)

| Title of Inventi | on | METHOD AND SYSTEM FOR ENGINE CONTROL |
|--|--|--|
| This declaration i | s direct | ed to: |
| | | tached application, or I States application or PCT international application numberfiled on |
| The above-identi | fied app | dication was made or authorized to be made by me. |
| I hereby state the including the claim | | ve reviewed and understand the contents of the specification in the above-identified application, |
| I believe that I an | n the or | iginal inventor or an original joint inventor of a claimed invention in the application. |
| continuation-in-p | art app | o disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for discations, 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 I hereinafter referrinterest, domestic of the ASSIGNE for the invention name or names, insert the serial 15/146 ASSIGNEE, its applications, in a including all apreexaminations a And I hereby agincluding applications, and organizations, and applications, applications, and applications, and applications, and applications, applications, and applications, applications, and applications, applicat | TECHOLOGIANT TECHO | 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 uccessors, 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 attorney to attoin number and filing date of the application to receive Letters Patent herein: Serial No. ——————————————————————————————————— |
| And I hereby rep | resent i | 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 | | |
| Inventor:I | homas | G. Leone Date: ZO'8 ~ O J ~ C] |
| Signature: | | In Jabus |
| Note: An Applica | ition Da | ta Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. |

PATENT REEL: 038459 FRAME: 0159 Please direct all correspondence to customer number: 36865

RECORDED: 05/04/2016

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|---------------------|-----------------------|---|--|
| Attorney Docket Nun | iber 8363051 <i>5</i> | ' | |

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

| Title of Invention | METHOD AND SYSTEM FOR ENGINE CONTROL | |
|--|--|--|
| This declaration is direct | ed to: | |
| | States 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. | re 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 | o 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. | |
| for of the State of Delaward hereinafter referred to a interest, domestic and fo of the ASSIGNEE, its state for the inventions and diname or names, or in my insert the serial/applica 15/146,687 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 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 accessors, assigns or other legal representatives to make applications and to receive Letters Patent scoveries in any and all countries, entities and intergovernmental organizations, in its or their own of name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to the store 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 a | nd 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 | | |
| | Raymond Martin Date: 2/26/2016 | |
| Mats: An Andrew | a Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. | |
| Use an additional declaration | a Sheet (P1O/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form, on form for each additional inventor. | |
| | DATENT | |

PATENT REEL: 038459 FRAME: 0160