506418806 12/22/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6465563

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
FRANK M KORPICS	11/25/2020
BRETT GAYNEY	11/20/2020
DEAN PENNALA	11/18/2020
WILLIAM GOODWIN	12/18/2020
MICHIEL J. VAN NIEUWSTADT	12/03/2020

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:	17131557

CORRESPONDENCE DATA

Fax Number: (971)271-8021

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: 9712718020 Email: finley@mccrus.com **Correspondent Name:** MCCOY RUSSELL LLP

Address Line 1: 1410 NW JOHNSON ST. SUITE 201

Address Line 4:

PORTLAND, OREGON 97209

ATTORNEY DOCKET NUMBER: 84315428 DAWSON FINLEY NAME OF SUBMITTER: SIGNATURE: /Dawson Finley/ **DATE SIGNED:** 12/22/2020

Total Attachments: 5

PATENT REEL: 054734 FRAME: 0088

506418806



PATENT REEL: 054734 FRAME: 0089

Attorney Docket Number	84315428

Title of Invention	METHODS AND SYSTEMS FOR NOX OFFSET DIAGNOSTIC
This declaration is directed	ed to:
	ached application, or States application or PCT international application number filed on (I hereby authorize the insertion of the application filing date and en they become known.)
The above-identified appl	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 original	ginal 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.	
FORD GLOBAL TECHN of the State of Delaware hereinafter referred to as interest, domestic and for of the ASSIGNEE, its su for the inventions and disname or names, or in my insert the serial/applicat 17/131,557 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, at 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 accessors, assigns or other legal representatives to make applications, 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.
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.	
or imprisonment of not m	at any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine tore than five (5) years or both.
LEGAL NAME OF INVI	11/26/2012 I
Inventor: Frank M F Signature: /Frank	M Korpics/
_	
	Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. In form for each additional inventor.

PATENT REEL: 054734 FRAME: 0090

Attorney Docket Number	84315428

Title of Invention	METHODS AND SYSTEMS FOR NOX OFFSET DIAGNOSTIC
This declaration is directed	ed to:
	tached application, or States application or PCT international application number filed on (I hereby authorize the insertion of the application filing date and men they become known.)
The above-identified app	lication was made or authorized to be made by me.
I hereby state that I havincluding 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 appl	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.
FORD GLOBAL TECHN of the State of Delaware hereinafter referred to as interest, domestic and for of the ASSIGNEE, its surfor the inventions and disname or names, or in my insert the serial/applicat 17/131,557 ASSIGNEE, its success applications, in and to the including all application reexaminations and reissue. And I hereby agree for reincluding applications for	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
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.	
	at 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 OF INV	11/20/2020
Inventor: Brett Gay	yliey Date.
Signature: Brett	Jayney
	a 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

Attorney Docket Number	84315428

Title of Invention	METHODS AND SYSTEMS FOR NOX OFFSET DIAGNOSTIC	
This declaration is directed	ed to:	
	ached application, or States application or PCT international application number filed on (I hereby authorize the insertion of the application filing date and en they become known.)	
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I hereby state that I hav 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.	
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.		
FORD GLOBAL TECHN of the State of Delaware hereinafter referred to as interest, domestic and for of the ASSIGNEE, its su for the inventions and disname or names, or in my insert the serial/applicat 17/131,557 ASSIGNEE, its success applications, in and to the including all application reexaminations and reissu		
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 ar	nd 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 tore than five (5) years or both.	
LEGAL NAME OF INVI	11/18/2020	
	Pennala/	
	Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. In form for each additional inventor.	

PATENT REEL: 054734 FRAME: 0092

Attorney Docket Number	84315408
PRICE TRUE S DESCRICE LAGRITOCE	84010460

Title of Invention	METHODS AND SYSTEMS FOR NOX OFFSET DIAGNOSTIC
This declaration is direct	ed to:
	ached application, or States application or PCT international application number filed on, (I hereby authorize the insertion of the application filing date and sen they become known.)
The above-identified app	lication was made or authorized to be made by me.
I hereby state that I hav including the claims.	re reviewed and understand the contents of the specification in the above-identified application,
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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 hal or PCT international filing date of the continuation-in-part application.
FORD GLOBAL TECHI of the State of Delaward hereinafter referred to as interest, domestic and fo of the ASSIGNEE, its so for the inventions and di name or names, or in my insert the serial/applica 17/131,557 ASSIGNEE, its success applications, in and to th including all application reexaminations and reiss And I hereby agree for	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 a 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 scoveries in any and all countries, entities and intergovernmental organizations, in its or their own mame, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to tion number and filing date of the application to receive Letters Patent herein: Serial No. —, Filing Date December 22, 2020 ——), and I hereby sell, assign and set over to the sors, assigns or other legal representatives, all rights of priority, including any provisional e inventions and discoveries in any and all countries, entities and intergovernmental organizations as claiming benefit of the filing date hereof, continuations, continuations-in-part, divisionals, the applications. Interpretation of any and all kinds and in any and all countries, entities and intergovernmental
organizations, and to per	form any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives ecure 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.
or imprisonment of not n	at any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine acre than five (5) years or both.
LEGAL NAME OF INV Inventor: William (
Signature: 211	M Jajan
	a Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. on form for each additional inventor.

Attorney Docket Number	84315428

Title of Invention	METHODS AND SYSTEMS FOR NOX OFFSET DIAGNOSTIC
mi i i i i i i	
This declaration is directed to:	
☐ The attached application, or ☐ United States application or PCT international application number ☐ filed on (I hereby authorize the insertion of the application filing date and	
number into this form wh	
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. 17/131,557, Filing Date	
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	ENTOR Van Nieuwstadt Date: 12/3/2020
•	J. Van Nieuwstadt/
Signature: //VIICTIEI	J. VAITINIGUWSIAUI/
	Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form

PATENT
RECORDED: 12/22/2020 REEL: 054734 FRAME: 0094