## 504742907 01/23/2018

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4789635

SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYAN	ICE:	ASSIGNMENT		
CONVEYING PARTY DA	ATA			
		Name	Execution Date	
J. STEVEN KOLHOUSE			11/06/2015	
CARLOS ALCIDES LANA			11/09/2015	
VIVEK A. SUJAN			11/10/2015	
PHANI VAJAPEYAZULA			11/10/2015	
J. STEPHEN WILLS	11/19/2015			
THOMAS M. YONUSHO	NIS		11/19/2015	
RECEIVING PARTY DA	ТА			
Name:	CUMMINS, INC.			
Street Address:	500 JACKSON STREET			
City:	COLUMBUS			
State/Country:	INDIANA			
Postal Code:	47201			
PROPERTY NUMBERS	Total: 1			
Property Type		Number		
Application Number:		14865529		
	<u>лтл</u>			
Fax Number		- the event edduces first, if thet is upon	acceful it will be cont	
		o the e-mail address first; if that is unsuce		
Correspondence will be using a fax number, if p		d; if that is unsuccessful, it will be sent vi		
Correspondence will be using a fax number, if p Email:		<i>d; if that is unsuccessful, it will be sent vi</i> lbuhs@foley.com, ipdocketing@foley.com		
Correspondence will be using a fax number, if p Email: Correspondent Name:		<i>d; if that is unsuccessful, it will be sent vi</i> lbuhs@foley.com, ipdocketing@foley.com FOLEY & LARDNER LLP		
Correspondence will be using a fax number, if p Email: Correspondent Name: Address Line 1:		d; if that is unsuccessful, it will be sent vie lbuhs@foley.com, ipdocketing@foley.com FOLEY & LARDNER LLP 3000 K STREET N.W.		
Correspondence will be using a fax number, if p Email: Correspondent Name: Address Line 1: Address Line 2:		<i>d; if that is unsuccessful, it will be sent vie</i> lbuhs@foley.com, ipdocketing@foley.com FOLEY & LARDNER LLP 3000 K STREET N.W. SUITE 600		
Correspondence will be using a fax number, if p Email: Correspondent Name: Address Line 1:		d; if that is unsuccessful, it will be sent vie lbuhs@foley.com, ipdocketing@foley.com FOLEY & LARDNER LLP 3000 K STREET N.W.		
Correspondence will be using a fax number, if p Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	orovide	d; if that is unsuccessful, it will be sent vie lbuhs@foley.com, ipdocketing@foley.com FOLEY & LARDNER LLP 3000 K STREET N.W. SUITE 600 WASHINGTON, D.C. 20007		
Correspondence will be using a fax number, if p Email: Correspondent Name: Address Line 1: Address Line 2:	orovide	d; if that is unsuccessful, it will be sent vie lbuhs@foley.com, ipdocketing@foley.com FOLEY & LARDNER LLP 3000 K STREET N.W. SUITE 600 WASHINGTON, D.C. 20007		
Correspondence will be using a fax number, if p Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	orovide	d; if that is unsuccessful, it will be sent via Ibuhs@foley.com, ipdocketing@foley.com FOLEY & LARDNER LLP 3000 K STREET N.W. SUITE 600 WASHINGTON, D.C. 20007		

**Total Attachments: 8** 

source=106389_3135_Assignment#page1.tif	
source=106389_3135_Assignment#page2.tif	
source=106389_3135_Assignment#page3.tif	
source=106389_3135_Assignment#page4.tif	
source=106389_3135_Assignment#page5.tif	
source=106389_3135_Assignment#page6.tif	
source=106389_3135_Assignment#page7.tif	
source=106389_3135_Assignment#page8.tif	

## ASSIGNMENT - WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor (hereinafter referred to singly and collectively as "ASSIGNOR") has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto

Cummins, Inc. 500 Jackson Street Columbus, IN 47201

(hereinafter referred to as "ASSIGNEE") its successors and assigns, the full and exclusive right, title and interest for the United States, its territories and possessions, and all foreign countries in and to this invention relating to

## SYSTEM, METHOD, AND APPARATUS FOR DRIVER OPTIMIZATION

as set forth in this United States Patent Application

*check one*[ ] executed concurrently herewith,
[ ] executed on
[ X ] Serial No. <u>14/865,529</u> Filed <u>9/25/2015</u>

as well as in and to (a) all improvements and modifications of the above-identified invention or inventions, (b) the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto for above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States and countries foreign thereto, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the Patent Cooperation Treaty, the Paris Convention and any other international agreement; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES ASSIGNEE to file patent applications in any or all countries on the above-identified invention or inventions in the name of the undersigned or in the name of ASSIGNEE or otherwise as ASSIGNEE may deem advisable under the International Convention or otherwise.

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

Page 1 of 8

PATENT REEL: 044704 FRAME: 0873 ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representative or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of Foley & Lardner LLP the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of Foley & Lardner LLP do not personally represent ASSIGNOR OR ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

Page 2 of 8

day of November, 20 15 Executed this 6 J. ŠTEVEŇ KOLHOUSE

State of <u>INDIANA</u>) County of <u>BARTHOLOMEW</u>)

> On <u>NOV. 6+6, 2015</u>, before me, <u>TOBY REECE</u> <u>JOHNSON</u> Date Here insert Name and Title of the Officer (Notary Public)

personally appeared <u>J. STEVEN KOLHOUSE</u> Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/their executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY that the foregoing paragraph is true and correct.

WITNESS my hand and official seal. 0000 Signature: Signature of Notary Public **TOBY REECE JOHNSON** Notary Public - Seal State of Indiana Place Notary Sell Above **Bartholomew County** My Commission Expires Sep 10, 2022

Page 3 of 8

Executed this <u>94-</u> day of <u>Movember</u>, 20/5.

CARLOS ALCIDES LANA  $\langle \rangle$ 

State of *INDIANA*) County of *BARTHELOMEN*)

TOBY REECE JO HIVSON Here insert Name and Title of the Officer (Notary Public) On November 4, 2015 before me, Date

personally appeared <u>CARLOS ALCIDES LANA</u> Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/their executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY that the foregoing paragraph is true and correct.

WITNESS my hand and official seals Signature. Signature of Notary Public **TOBY REECE JOHNSON** Notary Public - Seal State of Indiana Place No ary Seal Abeartholomsw County My Commission Expires Sep 10, 2022

Executed this 10th day of NOVEMBER, 2015. Ull Sugar HVIVEK A. SUJAN

State of <u>INDIANA</u> County of <u>BARTHOLOTE</u>

On <u>NOV</u>, 10, 2015, before me, <u>TOBY</u> <u>REECE</u> <u>JO HIV SON</u> Date Here insert Name and Title of the Officer (Notary Public)

personally appeared <u>VIVEK A. SUJAN</u> Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/their executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY that the foregoing paragraph is true and correct.
WITNESS my hand and official seal.
Signature Alex Keele to Korson
Signature of Notary Public
guille and an
TOBY REECE JOHNSON Notary Public - Seal
State of Indiana Place Notary Seal Above Bartholomew County
My Commission Expires Sep 10, 2022

Executed this  $10^{10}$  day of NOVEMDER, 2015.

PHANI VAJAPEYAZULA

State of INDIANA (Country of BARTHOLOMEN)

personally appeared <u>PHANI VAJAPEYAZULA</u> Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/their executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY that the foregoing paragraph is true and correct.

WITNESS my hand and official/seal. QQA Signature 5 1 Signature of Notary Public **TOBY REECE JOHNSON** Notary Public - Seal State of Indiana Place No ary Seal Absartholomew County My Commission Expires Sep 10, 2022

Atty. Dkt. No. 1063	Atty. Dkt. No. 106389-3135	
Executed this 11 day of NOV 2015		
L STEPHEN WILLIS- WILL S	55 W 14 JXN 2014	

State of <u>INDIANA</u> County of <u>BARTHOLDIMEN</u> , before me, <u>TOBY REECE JOHNSON</u> Here insert Name and Title of the Officer (Notary Public) On NOV. 14 2015 Date

personally appeared <u>J. STEPHEN WILLIS</u> Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/their executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY that the foregoing paragraph is true and correct.

WITNESS my/hand/and official/seal) Signatures 11 Signature of Notary Public **TOBY REECE JOHNSON** Notary Public - Seal State of Indiana Scal AbsRetholomew County My Commission Expires Sep 10, 2022 Place No. щv

Page 7 of 8

10

Executed this 19 day of AbvernBER 2015.

man THOMAS M. YONUSHONIS

State of <u>INDIANA</u> County of <u>BARTHELOMEN</u>)

On NOV. 19, 2015 before me, TOBY REECE JOHNSON Here insert Name and Title of the Officer (Notary Public)

personally appeared <u>THOMAS M. YONUSHONIS</u> Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/their executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY that the foregoing paragraph is true and correct.

WITNESS my hand and official/seal. Signature ŨŨĊŨ Signature of Notary Public **TOBY REECE JOHNSON** Notary Public - Seal State of Indiana Seal AbBartholomew County My Commission Expires Sep 10, 2022 Place No

Page 8 of 8