506261789 09/21/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6308535

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
PHANINDRA V. GARIMELLA	10/14/2019
JAMES RYAN HYSLOP	06/12/2019
VENKATRAMANAN JAYARAMAN	06/28/2019
PALLAV PATHAK	06/11/2019
MICHAEL JUSTIN TAMMEN	06/28/2019
PATRICK J. SHOOK	06/27/2019
RANDALL J. JOHNSON	06/13/2019
TRAVIS ALVA ANDERSON	06/11/2019

RECEIVING PARTY DATA

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:	17026699

CORRESPONDENCE DATA

Fax Number: (317)713-3699

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: 317-713-3500

Email: taft-ip-docket@taftlaw.com
Correspondent Name: DOUGLAS A. COLLIER

Address Line 1: TAFT STETTINIUS & HOLLISTER LLP
Address Line 2: ONE INDIANA SQUARE, STE. 3500
Address Line 4: INDIANAPOLIS, INDIANA 46204-2023

ATTORNEY DOCKET NUMBER:	CECO-1847
NAME OF SUBMITTER:	LISA SCHODROWSKI
SIGNATURE:	/Lisa Schodrowski/

DATE SIGNED:	09/21/2020	
Total Attachments: 32	<u> </u>	
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NOW, THEREFORE, for good, valuable and sufficient consideration to the Assignors, the receipt and sufficiency of which are hereby acknowledged, Assignors and Assignee agree as follows:

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COMBINED DECLARATION AND ASSIGNMENT CECO-1649/ 17-0349-SRC (PCT) Page 1

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[Signature Pages Follow]

Signed and executed this 14	大 day of_	october	, 2019.
4.7. Phani-dr Phanindra V. Garimella	• •		
Signed and executed this	day of		, 2019.
James Ryan Hyslop			
Signed and executed this	day of		, 2019.
Venkatramanan Jayaraman			
Signed and executed this	day of		, 2019.
Pallay Pathak			

Signed and executed this	day of	, 2019.
Michael Justin Tammen		
Signed and executed this	day of	, 2019.
	**	
Patrick J. Shook		
Signed and executed this	day of	,2019.
Randall J. Johnson		
Signed and executed this	day of	, 2019.
Travis Alva Anderson		

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[Signature Pages Follow]

Signed and executed this	day of	, 2019.
Phanindra V. Garimella		
	· (2004)	
Signed and executed this <u>/</u>	27" day of JUNE	, 2019.
Jones Fyn Hysky James Ryan Hyslop		
James Ryan Hyslop	**************************************	
Signed and executed this _	day of	, 2019
Venkatramanan Jayaraman		
Signed and executed this _	day of	, 2019
Pallav Pathak		

Signed and executed this	day of	, 2019.
Michael Justin Tammen		
Signed and executed this	day of	, 2019.
Patrick J. Shook	***************************************	
	•	2010
Signed and executed this	day of	, 2019.
75 4011 T T 1		
Randall J. Johnson		
Signed and executed this	day of	, 2019.
Travis Alva Anderson		

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[Signature Pages Follow]

Signed and executed this	day of		, 2019.
Phanindra V. Garimella			
Signed and executed this	day of		, 2019
James Ryan Hyslop			
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Signed and executed this 2	8 day of Jo	ine.	, 201
Signed and executed this $\frac{2}{\sqrt{2}}$	8 day of Jo	ine.	, 201
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Signed and executed this $\frac{2}{\sqrt{2}}$	8 day of Jo	ine.	,201
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COMBINED DECLARATION AND ASSIGNMENT CECO-1649/ 17-0349-SRC (PCT) Page 3

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PATENT

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Signed and executed this	day.of	, 2019.
Michael Justin Tammen		
Signed and executed this	day of	, 2019.
	***	-
Patrick J. Shook		
Signed and executed this	day of	
Randall J. Johnson		
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[Signature Pages Follow]

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James Ryan Hyslop		
James Kyan riystop		
Signed and executed this	day of	, 2019.
Venkatramanan Jayaraman		
Signed and executed this	1th day of JUNE	, 2019.
Jana		
Pallay Pathak		

COMBINED DECLARATION AND ASSIGNMENT CECO-1649/ 17-0349-SRC (PCT) Page 3

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Signed and executed this	day of	, 2019
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200	7	
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Signed and executed this day of	, 2019.
Travis Alva Anderson	

WHEREAS, the below-named persons (hereinafter referred to as "Assignors" or "Inventors") have made one or more new and useful inventions which are claimed, disclosed and/or described in the patent application identified in Section I. below (hereinafter collectively referred to as "the Invention");

WHEREAS, Cummins Inc. (hereinafter referred to as "Assignee") a legal entity organized under the laws of Indiana, desires to acquire the entire right, title and interest in to and under the Invention and any and all United States, foreign and international patent applications and patents which claim, disclose and/or describe the Invention; and

NOW, THEREFORE, for good, valuable and sufficient consideration to the Assignors, the receipt and sufficiency of which are hereby acknowledged, Assignors and Assignee agree as follows:

I. DECLARATION

As one of the below-named Inventors I hereby declare that:

This declaration is directed to the application entitled ENGINE FRICTION MONITOR:

is attached hereto, or

X was filed as International Patent Application No. PCT/US19/25385 on April 2, 2019.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

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.

II. ASSIGNMENT OF PATENT RIGHTS

A. Assignment of Patent Rights

Assignors hereby assign and transfer to Assignee, its successors and assigns, the entire right, title, and interest in, to and under (i) the Invention, (ii) any and all United States, foreign and international patent applications which claim, disclose or describe the Invention including, without limitation, the application identified in Section I. above and U.S. Provisional Application Ser. No. 62/651,469 filed April 2, 2018, (iii) any and all continuations, continuations-in-part, divisionals, foreign counterparts, reexaminations, reissues, extensions and applications claiming the benefit of or priority to any of the foregoing, (iv) any and all rights to claim priority to any of the foregoing, and (v) any and all rights to bring an action under, receive and collect damages for infringement of any of the foregoing and/or obtain injunctive relief for infringement of any of foregoing (hereinafter collectively referred to as "the Assigned Patent Rights").

Assignors acknowledge and agree that the Assigned Patent Rights include any and all future applications not filed at the time of execution of this agreement which disclose, describe and/or claim subject matter of the Invention, or which claim priority to or the benefit of an application or patent which discloses, describes and/or claims subject matter of the Invention. With respect to such future applications, Assignors hereby authorize Assignee, its counsel, or its agents to append information identifying such applications as an Exhibit A to this document at the discretion of Assignee, its attorneys, or its agents.

B. Agreement to Execute Additional Documents and Provide Further Assistance

COMBINED DECLARATION AND ASSIGNMENT CECO-1649/ 17-0349-SRC (PCT) Page 1

C. Binding, Complete and Enforceable Agreement

Assignors acknowledge that (i) this is an enforceable agreement; (ii) this agreement embodies the entire and only understanding between Assignors and Assignee with respect to the subject matter of this agreement; (iii) no oral explanation or oral information by either party hereto shall alter the meaning or interpretation of this agreement; and (iv) if any provision of this agreement is held to be unlawful or unenforceable, such provision shall be limited or eliminated to the minimum extent necessary so that the remainder of this agreement will continue in full force and effect and be enforceable.

D. Execution

This agreement may be executed in counterparts or duplicate originals, both of which shall be regarded as one and the same instrument, and which shall be the official and governing version in the interpretation of this agreement. This agreement may be executed by facsimile signatures or other electronic means and such signatures shall be deemed binding as if they were original signatures.

[Signature Pages Follow]

Signed and executed this day of	, 2019
Phanindra V. Garimella	
rhammara v. Garimena	
Signed and executed this day of	, 2019
James Ryan Hyslop	
200 1 1 C	2010
Signed and executed this day of	5.201
Venkatramanan Jayaraman	
Signed and executed thisday of	

Signed and executed this	day of		, 2019
Michael Justin Tammen			
Signed and executed this	day of		, 2019
Patrick J. Shook	<u> </u>	A	
Signed and executed this 13	th day of	June	, 2019.
DIIIM			
Rándall J, John≨ón			
ligned and executed this	day of		, 2019.
ravis Alva Anderson		nous.	

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Michael Justin Tammen			
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Patrick J. Shook	·····		
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Signed and executed this	day of		, 2019.
Randall J. Johnson			
	. stor		
Signed and executed this \perp	<u>l " </u> day of	June	, 2019.
7 Also And			
Travis Alva Anderson			

COMBINED DECLARATION AND ASSIGNMENT CECO-1649/ 17-0349-SRC (PCT) Page 4

RECORDED: 09/21/2020