

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5852471

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
PHANINDRA V. GARIMELLA	09/25/2019
JOHN L. HOEHNE	05/30/2019
IAN W. MCGIFFEN	06/27/2019
CHANDAN MAHATO	05/08/2019
BOOPATHI SINGALANDAPURAM MAHADEVAN	05/21/2019
PAGALAVAN MATHARI BAKTHAVATSALAM	05/08/2019
TRAVIS ALVA ANDERSON	05/08/2019
RECEIVING PARTY DATA	
Name:	CUMMINS INC.
Street Address:	500 JACKSON STREET
City:	COLUMBUS
State/Country:	INDIANA
Postal Code:	47201
PROPERTY NUMBERS Total: 2	
Property Type	Number
Application Number:	62350392
Application Number:	15578924
CORRESPONDENCE DATA	
Fax Number:	(317)237-1000
<i>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.</i>	
Phone:	317-237-0300
Email:	cummins.ip@faegrebd.com
Correspondent Name:	ZI YIE
Address Line 1:	300 NORTH MERIDIAN STREET, SUITE 2500
Address Line 4:	INDIANAPOLIS, INDIANA 46204
ATTORNEY DOCKET NUMBER:	CI-14-0619-01/02-US
NAME OF SUBMITTER:	ZI YIE
SIGNATURE:	/zi yie/

DATE SIGNED:	12/05/2019
Total Attachments: 8 source=20191205_CI-14-0619-02-US_Assignment#page1.tif source=20191205_CI-14-0619-02-US_Assignment#page2.tif source=20191205_CI-14-0619-02-US_Assignment#page3.tif source=20191205_CI-14-0619-02-US_Assignment#page4.tif source=20191205_CI-14-0619-02-US_Assignment#page5.tif source=20191205_CI-14-0619-02-US_Assignment#page6.tif source=20191205_CI-14-0619-02-US_Assignment#page7.tif source=20191205_CI-14-0619-02-US_Assignment#page8.tif	

ASSIGNMENT	Attorney Docket No.: CI-14-0619-01-US CI-14-0619-02-US	Page 1 of 8
	First Named Inventor: Phanindra V. Garimella	
	Title: SELECTIVE FUEL ON TIME AND COMBUSTION CENTROID MODULATION TO COMPENSATE FOR INJECTION NOZZLE CAVITATION AND MAINTAIN ENGINE POWER OUTPUT AND EMISSIONS FOR LARGE BORE HIGH-SPEED DIESEL ENGINE	

WHEREAS, we, **Phanindra V. Garimella**, residing at 3919 E Bennington Blvd., Bloomington, Indiana 47401, **John L. Hoehne**, residing at 9520 West County Road 225 South, Columbus, Indiana 47201, **Ian W. McGiffen**, residing at 5165 W County Road 600 N, Scipio, Indiana 47273, **Chandan Mahato**, residing at 1973 Creekstone Drive, Columbus, Indiana 14201, **Boopathi Singalandapuram Mahadevan**, residing at 2466 Meadow Bend Drive, Columbus, Indiana 47201, **Pagalavan Mathari Bakthavatsalam**, residing at 6978 Stoney Ridge Drive, Columbus, Indiana 47201, and **Travis Alva Anderson**, residing at 12929 W. Baker Hollow Road, Columbus, Indiana 47201 have invented certain new and useful improvements as described in a patent application entitled **SELECTIVE FUEL ON TIME AND COMBUSTION CENTROID MODULATION TO COMPENSATE FOR INJECTION NOZZLE CAVITATION AND MAINTAIN ENGINE POWER OUTPUT AND EMISSIONS FOR LARGE BORE HIGH-SPEED DIESEL ENGINE** as described in United States Patent Application No. **62/350,392**, filed on June 15, 2016 and United States Patent Application No. **15/578,924**, filed December 1, 2017(the "Application"), and

WHEREAS, **Cummins Inc.** a corporation of the State of Indiana, and having an at address 500 Jackson Street, Columbus, Indiana 47201 ("Assignee"), is desirous of acquiring the entire right, title and interest in and to the invention, the Application, and any and all Letters Patent or similar legal protection, foreign or domestic, to be obtained therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the undersigned hereby transfer and assign to Assignee, its successors and assigns, the entire right, title, and interest in and to the inventions, the Application, corresponding United States (US) applications (including provisionals, nonprovisionals, divisionals, continuations, continuations-in-part, reissues, reexaminations, substitutions and extensions thereof), corresponding non-US applications, all Letters Patent or similar legal protection issuing thereon (and absolute entitlement thereto), all rights and benefits under any applicable treaty or convention, all rights to apply for, prosecute, and obtain patents or similar legal protection anywhere in the world (in its own name if desired), all rights to claim priority to the Application, and all rights of action and damages for any past, present or future infringement relating thereto, including all rights of actions and damages from publication of any of the aforementioned patent applications and/or issuance of any patent relating thereto;

The undersigned will not execute any writing or do any act whatsoever conflicting with these obligations, and will, at any time upon request, without further or additional consideration, execute such additional assignments and other writings and do such additional acts as Assignee may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining any original, divisional, continuation, continuation-in-part, reexamination, or reissue patent or application (or substitutions or extensions) of the United States or of any and all non-US countries on said inventions, and in enforcing any rights or choses in action accruing as a result of such applications or patents, by (including, without limitation) giving testimony in any proceedings or transactions involving such applications or patents, and by executing preliminary statements and other affidavits (where said Assignee will reimburse the undersigned for reasonable expenses associated with such enforcement assistance). The foregoing covenant and agreement shall inure to the benefit of the assigns and legal representatives of the undersigned and Assignee; and the undersigned authorize the Commissioner of Patents and Trademarks of the United States or non-US equivalent thereof to issue the Letters Patent or similar legal protection to the Assignee.

The undersigned authorize the Assignee, its successors and assigns, or anyone it may properly designate, to insert in this instrument the filing date and application number of the Application when ascertained.

IN WITNESS WHEREOF, we have hereunto set our hand and affixed my seal on the date indicated below:

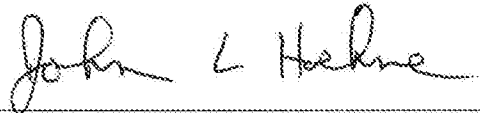
ASSIGNMENT	Attorney Docket No.: CI-14-0619-01-US CI-14-0619-02-US	Page 2 of 8
	First Named Inventor: Phanindra V. Garimella	
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Phanindra V. Garimella

Phanindra V. Garimella

Date 09/25/2019

ASSIGNMENT	Attorney Docket No.: CI-14-0619-01-US CI-14-0619-02-US	Page 3 of 8
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John L. Hoehne

Date 5/30/19

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Attorney Docket No.: CI-14-0619-01-US
CI-14-0619-02-US

Page 4 of 8

First Named Inventor: Phanindra V. Garimella

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Ian W. McGiffen

Date 6/27/19

ASSIGNMENT	Attorney Docket No.: CI-14-0619-01-US CI-14-0619-02-US	Page 5 of 8
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Chandan Mahato

Date 5/8/2019

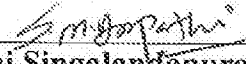
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Attorney Docket No.: CI-14-0619-01-US
CI-14-0619-02-US

Page 6 of 8

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EMISSIONS FOR LARGE BORE HIGH-SPEED DIESEL ENGINE


Boopathi Singalandapuram Mahadevan

Date May 21, 2019

ASSIGNMENT

Attorney Docket No.: CI-14-0619-01-US
CI-14-0619-02-US

Page 7 of 8

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Pagalavan Mathari Bakthavatsalam

Date 05/08/2019

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Attorney Docket No.: CI-14-0619-01-US
CI-14-0619-02-US

Page 8 of 8

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Travis Alva Anderson

Date 5/8/2019