PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7333451

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KUNLUN LIU	11/26/2019
XIAOBO SONG	12/02/2019
XING JIN	03/31/2020
KRISTOPHER R. BARE	11/23/2020
SRIRAM S. POPURI	12/02/2019
SCOTT ROBERT BARDAKJY	12/03/2019
AGNEYA TURLAPATI	03/03/2020

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:	17663562

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: 13177133500

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-2019
NAME OF SUBMITTER:	LISA SCHODROWSKI
SIGNATURE:	/Lisa Schodrowski/
DATE SIGNED:	05/17/2022

507286527 PATENT REEL: 060073 FRAME: 0931

Total Attachments: 28

source=EXECUTED Combined Declaration and Assignment CECO-1738#page1.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page2.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page3.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page4.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page5.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page6.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page7.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page8.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page9.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page10.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page11.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page12.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page13.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page14.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page15.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page16.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page17.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page18.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page19.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page20.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page21.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page22.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page23.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page24.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page25.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page26.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page27.tif source=EXECUTED Combined Declaration and Assignment CECO-1738#page28.tif

> PATENT REEL: 060073 FRAME: 0932

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 AFTERTREATMENT RECYCLING APPARATUS, AND SYSTEM AND METHOD USING SAME

is attached hereto, or X was filed as International Patent Application No. PCT/US19/63312 on November 26, 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

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[Signature Pages Follow]

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Kunlun Esu		
Signed and executed this	day of	 , 2019,

Xiaoho Song		
500 d a a a a a	a v	advictor de
Signed and executed this_	day of	 , 2019.
Xing Jin		
Signed and executed this	day of	 , 2019.
Variaba B Dan	,,	
Kristopher R. Bare		
Signed and executed this	day of	, 2019.
Sriram S. Popuri		

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Scott Robert Bardakjy		
Signed and executed this	day of	, 2020.
Agenya Turlapati		

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[Signature Pages Follow]

Signed and executed this	day of	, 2019.
Kunlun Liu		
Signed and executed this	<u>aday of Recoles</u>	, 2019.
	day of	, 2019.
	day of	, 2019.
Kristopher R. Bare Signed and executed this	day.of	, 2019.
Sriram S. Popuri		

Signed and executed this	day of	, 2019.
Scott Robert Bardakjy		
Signed and executed this	day of	, 2020.
Agenya Turlapati		

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Signed and executed this	day of	,2019
Kunion Liu		
Signed and executed this	dayof	2819
Xiaobo Song		
Signed and executed this 2		3036
Signed and executed this	day of	2020
Kristopher R. Bare		
Signed and executed this	day of	2019
Seram S. Popuri		

PATENT REEL: 060073 FRAME: 0943

Signed and executed this	day of	, 2019.
Scott Robert Bardakjy		
Signed and executed this	day of	, 2020.
Agenya Turlapati		

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[Signature Pages Follow]

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Kunlon Liu		
Signed and executed this	day of	, 2019
Xisobo Song		
Signed and executed this	day of	2020
Xing Jin		
Signed and executed this _ & \(\frac{1}{2} \frac{1}{2} \rightarrow \rightarr		2020
Signed and executed this	dayot	2019
inram S. Popun		

COMMUNITY DECLARATION AND ASSICHMENT CTCC-CTM-CHARLES BECOME Page 1 50 (488)

> PATENT REEL: 060073 FRAME: 0947

Signed and executed this	day of	, 2019.
Scott Robert Bardakjy		
Signed and executed this	day of	, 2020.
Agenya Turlapati		

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Kunlun Liu	, manifestate a production of
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Xiaobo Song	······································
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orgaed and executed thisuay	of, 2019.
Xing Jin	
Signed and executed this day	of, 2019.
Kristopher R. Bare	······································
~ 2W.	of DECEMBER, 2019
Signed and executed this day	or 1/2 exercises 2019
1585 Talani	1
Sriram S. Popuri /	

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Sriram S. Popuri		

Signed and executed this 3 day of Secember ,2019.
STRUBLES
Scott Robert Bardakjy
Signed and executed this day of, 2019.
Agenya Turlapati

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 AFTERTREATMENT RECYCLING APPARATUS, AND SYSTEM AND METHOD USING SAME

__ is attached hereto, or __X_ was filed as International Patent Application No. PCT/US19/63312 on November 26, 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, (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

B. Agreement to Execute Additional Documents and Provide Further Assistance

Assignors agree to execute any and all other documents necessary or desirable to document, memorialize or perfect Assignee's interest in the Assigned Patent Rights and to execute any and all other documents and to provide any further assistance necessary or desirable for the procurement of patent rights on the above referenced invention in the United Sates and all foreign countries.

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.
Kunlun Liu		
Signed and executed this	day of	. 2019

Xiaobo Song		
Signed and executed this	day of	, 2020.
Xing Jin	· · · · · · · · · · · · · · · · · · ·	
Signed and executed this	day of	, 2020.
Kristopher R. Bare		
Signed and executed this	day of	, 2019.
Sriram S. Popuri		

Signed and executed this day of		, 2019.
Scott Robert Bardakjy		
		*
Signed and executed this day of	MARCH	, 2020.
C The contract of the contract		
Agunya Turlapati		
PG REYA		
pt 03/03/2020		

COMBINED DECLARATION AND ASSIGNMENT CECO-1738/ 19-0242-EBU (PCT)
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RECORDED: 05/17/2022

PATENT REEL: 060073 FRAME: 0960