PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT5377173

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
PENG QUAN	01/16/2019
JUSTIN KOSIK	01/16/2019
COREY BERTCH	01/16/2019
ERIC CARUTH	01/16/2019

RECEIVING PARTY DATA

Name:	DETROIT DIESEL CORPORATION (DDC)
Street Address:	1340 OUTER DRIVE
City:	DETROIT
State/Country:	MICHIGAN
Postal Code:	48239-4001

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16314838

CORRESPONDENCE DATA

Fax Number: (202)628-8844

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: 202-624-2500

edocket@crowell.com, abaland@crowell.com Email:

CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP **Correspondent Name:**

Address Line 1: P.O. BOX 14300

Address Line 4: WASHINGTON, D.C. 20044-4300

ATTORNEY DOCKET NUMBER:	R: 095309.PB812US	
NAME OF SUBMITTER:	ROBERT L. GRABAREK, JR.	
SIGNATURE:	/Robert L. Grabarek, Jr./	
DATE SIGNED: 02/14/2019		
	This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 4

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(For Use with Signed Application Data Sheet)

Title of Invention:	Mixing Device and Aftertreatment Device	
the application i	delaration are directed to (check one): dentified above by the attorney docket no. and title of invention al Application Number PCT/EP2017/000738, filed June 26, 2017 pplication No, filed	
	<u>ASSIGNMENT</u>	
	consideration, the receipt and sufficiency of which are hereby acknowledged, as a large sold and assigned, and by these presents hereby sell and assign, unto:	
Name of Assignee:	Detroit Diesel Corporation (DDC)	
Address of Assignee:	1340 Outer Drive, Detroit, Michigan 48239-4001	
and to the above-identicontinuations thereof, a such application or for enjoyed by said ASSIG	E) all my right, title and interest for the United States, its territories and possessions in fied invention and United States patent application, including any and all divisions or and in and to any and all Letters Patent of the United States which may issue on any said invention, including any and all reissues or extensions thereof, to be held and iNEE, its successors or assigns to the full end of the term or terms for which any and all y be granted as fully and entirely as would have been held and enjoyed by me had this nade.	
	request the Director of the U.S. Patent and Trademark Office to issue any and all such SSIGNEE, its successors or assigns in accordance herewith.	
	that I have the full and unencumbered right to sell and assign the interests herein sold have not executed and will not execute any document or instrument in conflict	
I further covenant and agree that I will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to me relating to said invention or patent application and that I will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors or assigns, or to assist said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the United States for said invention.		
	<u>DECLARATION</u>	
As a below named inve	entor, I hereby declare that:	
The above-identified ap	pplication 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.	
	that any willful false statement made in this declaration is punishable under 18 U.S.C. onment of not more than five (5) years, or both.	
Signature: Peng	0UAN 16/2019 DATE	

IBACTIVE-8462215.1

(For Use with Signed Application Data Sheet)

Title of Invention:	Mixing Device and Aftertreatment Device	
the application is PCT Internation:	claration are directed to (check one): dentified above by the attorney docket no. and title o al Application Number PCT/EP2017/000738, filed J application No, filed,	une 26, 2017
	<u>ASSIGNMENT</u>	
	consideration, the receipt and sufficiency of which as have sold and assigned, and by these presents hereb	
Name of Assignee:	Detroit Diesel Corporation (DDC)	
Address of Assignee:	1340 Outer Drive, Detroit, Michigan 48239-400	1
and to the above-identificontinuations thereof, a such application or for enjoyed by said ASSIG	all my right, title and interest for the United States are invention and United States patent application, ind in and to any and all Letters Patent of the United said invention, including any and all reissues or extenses, its successors or assigns to the full end of the tobe granted as fully and entirely as would have been ade.	ncluding any and all divisions or States which may issue on any usions thereof, to be held and term or terms for which any and all
I hereby authorize and request the Director of the U.S. Patent and Trademark Office to issue any and all such Letters Patent to said ASSIGNEE, its successors or assigns in accordance herewith.		
I warrant and covenant that I have the full and unencumbered right to sell and assign the interests herein sold and assigned and that I have not executed and will not execute any document or instrument in conflict herewith.		
I further covenant and agree that I will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to me relating to said invention or patent application and that I will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors or assigns, or to assist said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the United States for said invention.		
	DECLARATION	
As a below named inve	ntor, I hereby declare that:	
The above-identified application was made or authorized to be made by me.		
I believe that I am the c	riginal inventor or an original joint inventor of a cla	imed invention in the application.
	hat any willful false statement made in this declarati nment of not more than five (5) years, or both.	on is punishable under 18 U.S.C.
Signature:	KOSIK	

IBACTIVE-8462216.5

(For Use with Signed Application Data Sheet)

Title of Invention:	Mixing Device and Aftertreatment Device	
the application i	declaration are directed to (check one): dentified above by the attorney docket no. and title of invention al Application Number PCT/EP2017/000738, filed June 26, 2017 pplication No	
	<u>ASSIGNMENT</u>	
	consideration, the receipt and sufficiency of which are hereby acknowledged, as a have sold and assigned, and by these presents hereby sell and assign, unto:	
Name of Assignee:	Detroit Diesel Corporation (DDC)	
Address of Assignee:	1340 Outer Drive, Detroit, Michigan 48239-4001	
and to the above-identi continuations thereof, a such application or for enjoyed by said ASSIG	E) all my right, title and interest for the United States, its territories and possessions in fied invention and United States patent application, including any and all divisions or and in and to any and all Letters Patent of the United States which may issue on any said invention, including any and all reissues or extensions thereof, to be held and NEE, its successors or assigns to the full end of the term or terms for which any and all be granted as fully and entirely as would have been held and enjoyed by me had this tade.	
I hereby authorize and request the Director of the U.S. Patent and Trademark Office to issue any and all such Letters Patent to said ASSIGNEE, its successors or assigns in accordance herewith.		
I warrant and covenant that I have the full and unencumbered right to sell and assign the interests herein sold and assigned and that I have not executed and will not execute any document or instrument in conflict herewith.		
I further covenant and agree that I will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to me relating to said invention or patent application and that I will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors or assigns, or to assist said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the United States for said invention.		
	<u>DECLARATION</u>	
As a below named inve	intor, I hereby declare that:	
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.	
	that any willful false statement made in this declaration is punishable under 18 U.S.C. imment of not more than five (5) years, or both.	
Signature: Corey	BERTCH DATE DATE	

IRACTIVE-8462216.1

(For Use with Signed Application Data Sheet)

Title of Invention:	Mixing Device and Aftertreatment Device	
the application PCT Internation	eclaration are directed to (check one): identified above by the attorney docket no. and title of inv nal Application Number PCT/EP2017/000738, filed June 2 application No	26, 2017
	ASSIGNMENT	
	consideration, the receipt and sufficiency of which are her I have sold and assigned, and by these presents hereby sel	
Name of Assignee:	Detroit Diesel Corporation (DDC)	
Address of Assignee:	1340 Outer Drive, Detroit, Michigan 48239-4001	
and to the above-ident continuations thereof, such application or for enjoyed by said ASSI	EE) all my right, title and interest for the United States, its iffied invention and United States patent application, included in and to any and all Letters Patent of the United States said invention, including any and all reissues or extension GNEE, its successors or assigns to the full end of the term by be granted as fully and entirely as would have been held made.	ding any and all divisions or es which may issue on any as thereof, to be held and or terms for which any and all
	request the Director of the U.S. Patent and Trademark Of ASSIGNEE, its successors or assigns in accordance herew	
	t that I have the full and unencumbered right to sell and as I have not executed and will not execute any document or	
I further covenant and agree that I will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to me relating to said invention or patent application and that I will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors or assigns, or to assist said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the United States for said invention.		
	DECLARATION	
As a below named inv	rentor, I hereby declare that:	
The above-identified a	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.
	that any willful false statement made in this declaration is comment of not more than five (5) years, or both.	punishable under 18 U.S.C.
Signature: \(\sigma_z\)	(6.4	1/16/19
	CARUTH	DATE

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RECORDED: 02/14/2019