505246896 12/20/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5293675

NATURE OF CONVEYANCE:ASSIGNMENTCONVEYING PARTY DATAExecutionNameExecutionBRADLEY FINGLAND12/07/2018MICHAEL C. BRADFORD11/15/2018	Date	
NameExecutionBRADLEY FINGLAND12/07/2018	Date	
BRADLEY FINGLAND 12/07/2018	Date	
MICHAEL C. BRADFORD 11/15/2018		
RECEIVING PARTY DATA		
Name: TENNECO AUTOMOTIVE OPERATING COMPANY INC.	TENNECO AUTOMOTIVE OPERATING COMPANY INC.	
Street Address: 500 NORTH FIELD DRIVE	500 NORTH FIELD DRIVE	
City: LAKE FOREST	LAKE FOREST	
State/Country: ILLINOIS	ILLINOIS	
Postal Code: 60045	60045	
PROPERTY NUMBERS Total: 1 Property Type Number		
Application Number: 16227022		

Address Line 2: SUITE 700

Address Line 4: GRAND RAPIDS, MICHIGAN 49503

ATTORNEY DOCKET NUMBER:	PA-NACA-18-01238
NAME OF SUBMITTER:	JOHN F. COLLIGAN
SIGNATURE:	/John F. Colligan/
DATE SIGNED:	12/20/2018
Total Attachments: 4 source=G1272637#page1.tif source=G1272637#page2.tif source=G1272637#page3.tif source=G1272637#page4.tif	

ASSIGNMENT

WHEREAS, the undersigned, hereinafter referred to collectively as Assignors, are about to make or have made the following patent applications:

SYSTEM AND METHOD FOR TREATING AMBIENT AIR

for which Assignor is about to make or has made United States or International application for patent

- (a) X executed on even date preparatory to filing (each inventor should sign this Assignment on the same day as he/she signs the Declaration);
- (b) C executed on ______ or
- (c) [C] filed on _____, and assigned Serial No. _____ or PCT International Application No. _____; and

WHEREAS, Tenneco Automotive Operating Company Inc., 500 North Field Drive, Lake Forest, IL, USA, hereinafter referred to as Assignee, is desirous of acquiring all right, title, and interest therein:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy whereof is hereby acknowledged. Assignors hereby confirm any prior assignment to Assignee, and to the extent that Assignors have not already done so, agree to assign, and hereby do, sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the inventions as described in the aforesaid application, to the aforesaid application itself, and all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application, and any United States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforesaid application and the subject matter disclosed therein, these rights, title and interest to be held and enjoyed by Assignee to the full end of the term for which the Letters Patent, utility model, or other similar rights, are granted and any extensions thereof as fully and entirely as the same would have been held by Assignors had this assignment and sale not been made, and the right to sue for, and recover for past infringements of, or liabilities for, any of the rights relating to any of the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights.

Assignors hereby covenant and agree to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, any derivation proceedings relating thereto, and as to Letters Patent any supplemental examination, derivation proceeding, opposition, post grant review, relissue, re-examination, inter partes review, or extension thereof, and for litigation regarding, or for the purpose of defending the validity of or protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee and its successors in interest without further or other compensation than that above set forth,

PATENT REEL: 047828 FRAME: 0880 Assignors hereby covenant that no assignment, sale, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment.

Assignors further covenant not to challenge, or assist or participate in any third party challenge to, the assigned inventions, or any patent application or patent thereon, whether by litigation, post grant review, inter partes review, covered business method review, reexamination, or otherwise.

Assignors hereby request the United States Patent and Trademark Office to issue the Letters Patent of the United States of America to Assignee, and request that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue the Letters Patent, Utility Model Registration or other similar right to Assignee.

Assignors hereby grant the law firm of <_____> the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

Bradley Fingland

Witness 1 Signature:	Gak M. C
Witness 1 Printed Name:	Gabriela M. Allun
Witness 2 Signature:	Kathlen Unar
Witness 2 Printed Name:	Kamleen Charker

ASSIGNMENT

WHEREAS, the undersigned, hereinafter referred to collectively as Assignors, are about to make or have made the following patent applications:

SYSTEM AND METHOD FOR TREATING AMBIENT AIR

for which Assignor is about to make or has made United States or International application for patent

- (a) executed on even date preparatory to filing (each inventor should sign this Assignment on the same day as he/she signs the Declaration);
- (b) ______; or ____; or
- (c) filed on _____, and assigned Serial No. _____ or PCT International Application No. ______; and

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Assignors hereby covenant and agree to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, any derivation proceedings relating thereto, and as to Letters Patent any supplemental examination, derivation proceeding, opposition, post grant review, reissue, re-examination, inter partes review, or extension thereof, and for litigation regarding, or for the purpose of defending the validity of or protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee and its successors in interest without further or other compensation than that above set forth.

PATENT REEL: 047828 FRAME: 0882 Assignors hereby covenant that no assignment, sale, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment.

Assignors further covenant not to challenge, or assist or participate in any third party challenge to, the assigned inventions, or any patent application or patent thereon, whether by litigation, post grant review, inter partes review, covered business method review, reexamination, or otherwise.

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Assignors hereby grant the law firm of <_____> the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

Witness 1 Signature: Michael C.Bradford Witness 1 15 November 2018 Printed Name: Dated Witness 2 Signature: Witness 2 Printed Name:

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