504130054 12/08/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4176725

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHIHARU NAKAZAWA	11/07/2016
RYOHEI MARUO	11/07/2016

RECEIVING PARTY DATA

Name:	HITACHI AUTOMOTIVE SYSTEMS, LTD.
Street Address:	2520, TAKABA
City:	HITACHINAKA-SHI, IBARAKI
State/Country:	JAPAN
Postal Code:	312-8503

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15317278

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.

Email: mbrooks@crowell.com **CROWELL & MORING LLP** Correspondent Name:

Address Line 1: 1001 PENNSYLVANIA AVENUE NW

Address Line 4: WASHINGTON, D.C. 20004

ATTORNEY DOCKET NUMBER:	110882.69719US
NAME OF SUBMITTER:	MICHAEL H. JACOBS
SIGNATURE:	/Michael H. Jacobs/
DATE SIGNED:	12/08/2016
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 2

source=69719US Combined Assignment and Declaration#page1.tif source=69719US_Combined Assignment and Declaration#page2.tif

PATENT REEL: 040604 FRAME: 0098 504130054

Attorney Docket No. U.S. Rights

ASSIGNMENT AND DECLARATION UNDER 37 C.F.R. § 1.63 (For Use with Signed Application Data Sheet)

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This assignment and declaration are directed to (check one): the application identified above by the attorney docket no. and title of invention PCT International Application Number PCT/JP2015/067003, filed June 12, 2015 United States Application No. Deprivation of the Computer of the United States Application Number PCT/JP2015/067003, filed June 12, 2015 United States Application No.	Title of Invention:				
the application identified above by the attorney docket no. and title of invention PCT International Application Number PCT/JP2015/067003, filed June 12, 2015 United States Application No. **ASSIGNMENT** For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, as a below-named inventor I have sold and assigned, and by these presents hereby sell and assign, unto: **Name of Assignee:** Hitachi Automotive Systems, Ltd.** Address of Assignee: 2520, Takaba, Hitachinaka-shi, Ibaraki 312-8503 Japan Thereinafter ASSIGNEE) all my right, title, and interest for the United States, its territories, and possessions in and to the above-identified invention and United States patent application, including any and all divisions or continuations thereof, and in and to any and all Letters Patent of the United States that may issue on any such application or for said invention, including any and all retries are retrieved by said ASSIGNEE, its successors, or assigns to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by me had this Assignment not been made. 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 herowith. 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 my document or instrument in conflict herewith. I further covenant and agree that I will communicate to said ASSIGNEE, its successors, legal representatives, or assigns 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 repres	BRAKE APPARATUS				
For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, as a below-named inventor I have sold and assigned, and by these presents hereby sell and assign, unto: Name of Assignee: Hitachi Automotive Systems, Ltd. Address of Assignee: 2520, Takaba, Hitachinaka-shi, Ibaraki 312-8503 Japan (hereinafter ASSIGNEE) all my right, title, and interest for the United States, its territories, and possessions in and to the above-identified invention and United States patent application, including any and all divisions or continuations thereof, and in and to any and all Letters Patent of the United States that may issue on any such application or for said invention, including any and all reissues or extensions thereof, to be held and enjoyed by said ASSIGNEE, its successors, or assigns to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by me had this Assignment not been made. 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 that may be granted therefor or	☐ the application ider ☐ PCT International A	ntified above by the attorney do Application Number PCT/JP	ocket no. and title of invent 2015/067003, filed Jur	ne 12, 2015	
Name of Assignee: Hitachi Automotive Systems, Ltd. Address of Assignee: 2520, Takaba, Hitachinaka-shi, Ibaraki 312-8503 Japan (hereinafter ASSIGNEE) all my right, title, and interest for the United States, its territories, and possessions in and to the above-identified invention and United States patent application, including any and all divisions or continuations thereof, and in and to any and all Letters Patent of the United States that may issue on any such application or for said invention, including any and all reissues or extensions thereof, to be held and enjoyed by said ASSIGNEE, its successors, or assigns to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by me had this Assignment not been made. 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 decemed 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 that may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors, legal representatives, or assigns in obtaining, reissuing, or enforcing Letters Patent of the United States for said inventio		<u>ASSIGN</u>	<u>MENT</u>		
Address of Assignee: 2520, Takaba, Hitachinaka-shi, Ibaraki 312-8503 Japan (hereinafter ASSIGNEE) all my right, title, and interest for the United States, its territories, and possessions in and to the above-identified invention and United States patent application, including any and all divisions or continuations thereof, and in and to any and all Letters Patent of the United States that may issue on any such application or for said invention, including any and all reissues or extensions thereof, to be held and enjoyed by said ASSIGNEE, its successors, or assigns to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by me had this Assignment not been made. 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 herowith. 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 that may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors, legal representatives, or assigns in obtaining, reissuing, or enforcing Letters Patent of the United States for said invention in the application. I hereby acknowledge that any					
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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 that may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors, legal representatives, or assigns in obtaining, reissuing, 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 inventor, 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. 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.	and to the above-identified invention and United States patent application, including any and all divisions or continuations thereof, and in and to any and all Letters Patent of the United States that may issue on any such application or for said invention, including any and all reissues or extensions thereof, to be held and enjoyed by said ASSIGNEE, its successors, or assigns to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by me had this				
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PATENT REEL: 040604 FRAME: 0099

ASSIGNMENT AND DECLARATION UNDER 37 C.F.R. § 1.63

(For Use with Signed Application Data Sheet)

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☐ the application☐ PCT Internation	nal Application Number P	check one): orney docket no. and title of into CT/JP2015/067003, filed, filed	June 12, 2015
	AS	SIGNMENT	
		and sufficiency of which are he and by these presents hereby se	
Name of Assignee:	Hitachi Automotive S	Systems, Ltd.	
Address of Assigned	e: 2520, Takaba, Hitacl	ninaka-shi, Ibaraki 312-850	3 Japan
and to the above-identi continuations thereof, a application or for said by said ASSIGNEE, its	ified invention and United and in and to any and all L invention, including any a s successors, or assigns to granted as fully and entirel	nterest for the United States, its States patent application, inclu- letters Patent of the United Stat and all reissues or extensions the the full end of the term or term by as would have been held and	ding any and all divisions or es that may issue on any such creof, to be held and enjoyed s for which any and all such
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or assigns all informati and deliver any papers, acts deemed necessary perfect title to said inveall Letters Patent that r its successors, or assign	ion known to me relating to make all rightful oaths, to or desirable by said ASSI ention, to said application may be granted therefor or no, or to assist said ASSIG	cate to said ASSIGNEE, its successful invention or patent appliestify in any legal proceedings, GNEE, its successors, legal repincluding divisions and continuithereon, including reissues or MEE, its successors, legal reprof the United States for said inventions.	cation and that I will execute and perform all other lawful presentatives, or assigns to nations thereof and to any and extensions, in said ASSIGNEE, esentatives, or assigns in
	DEC	CLARATION	
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PATENT REEL: 040604 FRAME: 0100

DATE

RECORDED: 12/08/2016

Ryohei MARUO

Signature:

Inventor: