505796414 11/27/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5843243

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GREGORY FORREST HEATH	11/11/2019
ROBERT J. ATMUR	11/08/2019
WILLIAM PATRICK SARGENT	11/14/2019
TSE-HUA SHEN	11/11/2019
BRYANT SCOTT OWEN	11/13/2019
ALICE A. MURPHY	11/25/2019

RECEIVING PARTY DATA

Name: THE BOEING COMPANY	
Street Address:	100 NORTH RIVERSIDE PLAZA
City:	CHICAGO
State/Country:	ILLINOIS
Postal Code:	60606-1596

PROPERTY NUMBERS Total: 1

Property Type	Number			
Application Number:	16698742			

CORRESPONDENCE DATA

Fax Number: (503)972-9115

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: (503) 224-6655

Email:veronica@khpatent.comCorrespondent Name:KOLISCH HARTWELL, P.C.Address Line 1:520 SW YAMHILL STREET

Address Line 2: SUITE 300

Address Line 4: PORTLAND, OREGON 97204

ATTORNEY DOCKET NUMBER:	7-1444-US-NP (BOE3E6)				
NAME OF SUBMITTER:	PIERRE C. VAN RYSSELBERGHE				
SIGNATURE:	/Pierre C. Van Rysselberghe/				
DATE SIGNED:	11/27/2019				

PATENT 505796414 REEL: 051133 FRAME: 0692

Total Attachments: 6

source=20191127_Executed_Assignment_with_Serial_No_17_1444_US_NP_BOE3E6#page1.tif source=20191127_Executed_Assignment_with_Serial_No_17_1444_US_NP_BOE3E6#page2.tif source=20191127_Executed_Assignment_with_Serial_No_17_1444_US_NP_BOE3E6#page3.tif source=20191127_Executed_Assignment_with_Serial_No_17_1444_US_NP_BOE3E6#page4.tif source=20191127_Executed_Assignment_with_Serial_No_17_1444_US_NP_BOE3E6#page5.tif source=20191127_Executed_Assignment_with_Serial_No_17_1444_US_NP_BOE3E6#page6.tif

PATENT REEL: 051133 FRAME: 0693

ASSIGNMENT

WHEREAS, Gregory Forrest Heath, residing at Apache Junction, Arizona, (hereinafter "Assignor") has invented certain new and useful inventions and improvements (hereinafter "Invention") described in the United States patent application entitled VARIABLE SPEED TRANSMISSION AND RELATED METHODS for which Assignor is making or has made application for LETTERS PATENT OF THE UNITED STATES, which application has been duly executed by Assigner concurrently herewith; or filed on November 27, 2019 16/698,742

WHEREAS, The Boeing Company, a corporation organized and existing under the laws of the State of Delaware, USA, baving a place of business at 100 North Riverside Plaza, Chicago, Illinois 60606-1596, USA (hereinafter called "the Assigned"), is desirous of acquiring the entire right, fitle and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any United States or foreign LETTERS PATENT that may be granted therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, Assignor has assigned, sold and transferred, and does assign, sell and transfer to the Assignee, its successors and assigns, its entire right, title and interest in said to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any LETTERS PATENT of the United States and foreign countries, including utility models, inventor's certificates and like government grants that may be granted for any and all purions thereof, and in and to the patent application identified above and applications for patent filed for the Invention in all foreign countries and all provisional, divisional, gissue, continuation, continuation-in-part applications and extensions of any of the applications for patent or LETTERS PATENT identified herein, including all applications claiming the priority of said applications for patent or LETTERS PATENT identified berein, and the right to apply for LETTERS PATENT in foreign countries with full benefit of such priorities as may now or bereafter be granted to Assigner by local laws or by treaty, including any international convention, for the protection of industrial property, together with the right to extend the protection of the United States LETTERS PATENT to the various tetritorial possessions now owned or which may be hereafter acquired by the United States of America, Assigned will hold all rights for its own use and benefit and for the use and benefit of its successors or assigns to the full and of the term for which the LETTERS PATENT may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made. Assignor requests and authorizes the Commissioner of the U.S. Patent and Trademark Office, and foreign counterpart officials of foreign patent offices, to issue respective LETTERS PATENT in the United States and foreign countries when granted, in accordance with this assignment.

Assignor further coverants and agrees with the Assignee that Assignor has a full and unencombered title to the Assignor's interest in the Invention, which title Assigner warrants to the Assignee. Assigner further agrees that Assigner will, without demanding any further consideration therefor, at the request and expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become nexessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign LETTERS PATENT or the like for the Invention, and for maintaining and perfecting the Assignee's right to the Invention and LETTERS PATENT particularly in cases of interference conflict, opposition and litigation.

Assignor authorizes and directs any of the attorneys responsible for prosecuting the subject application on behalf of the ASSIGNEE to insert the application number and filing date of the subject application in the first paragraph of this Assignment.

IN TESTIMONY WHEREOF, I have signed this Assignment on the date specified below.

4278728214824= 11-11-19 Graffed Forces Reals Date

ASSIGNMENT

WHEREAS, Robert J. Atmur, residing at Whittier, California, (hereinafter "Assignor") has invented certain new and useful inventions and improvements (hereinafter "Invention") described in the United States patent application entitled VARIABLE SPEED TRANSMISSION AND RELATED METHODS for which assignor is making or has made application for LETTERS PATENT OF THE UNITED STATES, which application has been duly executed by Assignor concurrently herewith; or filed on November 27, 2019 as Application No. 16/698,742

WHEREAS, The Boeing Company, a corporation organized and existing under the laws of the State of Delaware, USA, having a place of business at 100 North Riverside Plaza, Chicago, Illinois 60606-1596, USA (hereinafter called "the Assignee"), is desirous of acquiring the entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any United States or foreign LETTERS PATENT that may be granted therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, Assignor has assigned, sold and transferred, and does assign, sell and transfer to the Assignee, its successors and assigns, its entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign committee, and in and to any LETTERS PATENT of the United States and foreign countries, including utility models, inventor's certificates and like government grants that may be granted for any and all portions thereof, and in and to the patent application identified above and applications for patent filed for the Invention in all foreign countries and all provisional, divisional, reissue, continuation, continuation in-part applications and extensions of any of the applications for patent or LETTERS PATENT identified herein, including all applications claiming the priority of said applications for patent or LETTERS PATENT identified herein, and the right to apply for LETTERS PATENT in foreign countries with full benefit of such priorities as may now or hereafter be granted to Assignor by local laws or by treaty, including any international convention, for the protection of industrial property, together with the right to extend the protection of the United States LETTERS PATENT to the various territorial possessions now owned or which may be hereafter acquired by the United States of America, Assignee will hold all rights for its own use and benefit and for the use and benefit of its successors or assigns to the full and of the term for which the LETTERS PATENT may be grapted, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made. Assignor requests and authorizes the Commissioner of the U.S. Patent and Trademark Office, and foreign counterpart officials of foreign patent offices, to issue respective LETTERS PATENT in the United States and foreign countries when granted, in accordance with this assignment.

Assignor further covenants and agrees with the Assignee that Assignor has a full and unencumbered title to the Assignor's interest in the Invention, which title Assignor warrants to the Assignee. Assignor further agrees that Assignor will, without demanding any further consideration therefor, at the request and expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign LETTERS PATENT or the like for the Invention, and for maintaining and perfecting the Assignee's right to the Invention and LETTERS PATENT particularly in cases of interference conflict, opposition and litigation.

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IN TESTIMONY WHEREOF, I have signed this Assignment on the date specified below.

1

Robert J. Atmur

<u>540/2019</u>

ASSIGNMENT

WHEREAS, William Patrick Sargent, residing at Fullerton, California, (hereinafter "Assignor") has invented certain new and useful inventions and improvements (hereinafter "Invention") described in the United States patent application entitled VARIABLE SPEED TRANSMISSION AND RELATED METHODS for which Assignor is making or has made application for LETTERS PATENT OF THE UNITED STATES, which application has been duly executed by Assignor concurrently herewith; or filed on November 27, 2019 as Application No. 16/698,742

WHEREAS, The Boeing Company, a corporation organized and existing under the laws of the State of Delaware, USA, having a place of business at 100 North Riverside Plaza, Chicago, Illinois 60606-1596, USA (hereinafter called "the Assignee"), is desirous of acquiring the entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any United States or foreign LETTERS PATENT that may be granted therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, Assignor has assigned, sold and transferred, and does assign, sell and transfer to the Assignee, its successors and assigns, its entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any LETTERS PATENT of the United States and foreign countries, including utility models, inventor's certificates and like government grants that may be granted for any and all portions thereof, and in and to the patent application identified above and applications for patent filed for the Invention in all foreign countries and all provisional, divisional, reissue, continuation, continuation-in-part applications and extensions of any of the applications for patent or LETTERS PATENT identified herein, including all applications claiming the priority of said applications for patent or LETTERS PATENT identified herein, and the right to apply for LETTERS PATENT in forcign countries with full benefit of such priorities as may now or hereafter be granted to Assignor by local laws or by treaty, including any international convention, for the protection of industrial property, together with the right to extend the protection of the United States LETTERS PATENT to the various territorial possessions now owned or which may be hereafter acquired by the United States of America. Assignce will hold all rights for its own use and benefit and for the use and benefit of its successors or assigns to the full end of the term for which the LETTERS PATENT may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made. Assignor requests and authorizes the Commissioner of the U.S. Patent and Trademark Office, and furging counterpart officials of foreign patent offices, to issue respective LETTERS PATENT in the United States and foreign countries when granted, in accordance with this assignment.

Assignor further covenants and agrees with the Assignee that Assignor has a full and unencumbered title to the Assignor's interest in the Invention, which title Assignor warrants to the Assignee. Assignor further agrees that Assignor will, without demanding any further consideration therefor, at the request and expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing or reexamining United States and foreign LETTERS PATENT or the like for the Invention, and for maintaining and perfecting the Assignee's right to the Invention and LETTERS PATENT particularly in cases of interference conflict, opposition and litigation.

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IN TESTIMONY WHEREOF, I have signed this Assignment on the date specified below.

illiam Patrick Sargent

Deux 11-14-2019

ASSIGNMENT

WHEREAS, Tsc-lina Shen, residing at Phoenix, Arizona, (hereinafter "Assignor") has invented certain new and useful inventions and improvements (heroinafter "Invention") described in the United States patent application confiled VARIABLE SPEED TRANSMISSION AND RELATED METHODS for which Assignor is making or has made application for LETTERS PATENT OF THE UNITED STATES, which application has been duly executed by Assignor concurrently herewith; or filed on November 27, 2019 as Application No. 16/698,742;

WHEREAS, The Booing Company, a corporation organized and existing under the laws of the State of Delaware, USA, having a place of business at 100 North Riverside Plaza, Chicago, Illinois 60606-1596, USA (hereinafter called "the Assignee"), is desirous of acquiring the entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any United States or foreign LETTERS PATENT that may be granted therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged. Assignor has assigned, sold and transferred, and does assign, sell and transfer to the Assignee, its successors and assigns, its entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any LETTERS PATENT of the United States and fineign countries, including utility models, inventor's certificates and fike government grants that may be granted for any and all portions thereof, and in and to the patent application identified above and applications for patent filed for the Invention in all foreign countries and all provisional, divisional, reissue, continuation, continuation-in-part applications and extensions of any of the applications for patent or LETTERS PATENT identified herein, including all applications claiming the priority of said applications for patent or LETTERS PATENT identified herein, and the right to apply for LETTERS PATENT in foreign countries with full benefit of such priorities as may now or hereafter be granted to Assigner by local laws or by treaty, including any international convention, for the protection of industrial property, together with the right to extend the protection of the United States LETTERS PATENT to the various territorial possessions now owned or which may be hereafter acquired by the United States of America. Assignce will hold all rights for its own use and benefit and for the use and benefit of its successors or assigns to the full end of the term for which the LETTERS PATENT may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made. Assignor requests and authorizes the Commissioner of the U.S. Patent and Trademark Office, and foreign counterpart officials of foreign patent offices, to issue respective LETTERS PATENT in the United States and foreign countries when granted in accordance with this assignment.

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IN TESTIMONY WHEREOF, I have signed this Assignment on the date specified below.

Zah Stan 1/11/2019

ASSIGNMENT

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NON	and a	soful	nventio	rs and	improv	ements	(bere	inafter	"Yave	ntion")	desc	ribed i	n the	United	States	pateni
appi	ication	antitle	d VARI	ABLE	SPEED	TRAN	(SMIS	SSION	CVA	RELA	TED I	METH	ODS £	or whic	h Assis	mor is
mak	ing or l	ias ma	de appli	cation	for LET	TERS I	ATE	NT OF	THE	UNITE	m st	ATES,	which	applica	tion ha	s been
duly	execus	ed by	Assigno	e conc	orrently.	herewi	ŵ; or	filed o	83	Nove	mbe	r 27,	2019)	s Appl	ication
No.	1	6/69	8,742			s S							***************************************		3.4	

WHEREAS, The Boeing Company, a corporation organized and existing under the laws of the State of Delaware, USA, having a place of business at 100 North Riverside Plaza, Chicago, Illinois 60606-1596, USA (hereinafter called "the Assignee"), is desirous of acquiring the entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any United States or foreign LETTERS PATENT that may be granted therefor;

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IN TESTIMONY WHEREOF, I have signed this Assignment on the date specified below.

Bryant Scott Owen

101-13-2019 Date

ASSIGNMENT

WI	HEREAS,	Alice A. M	urphy, residin	g at San l	Mesa,	Arizona, (hereinafter "Ass	signor") has inv	ented certain	new
and	l useful inv	entions and	improvement	s (hereina	fter "I	nvention") described in the	e United States	patent applica	ation
ent	itled VARL	ABLE SPE	ED TRANSM	ISSION A	AND R	ELATED METHODS for	which Assigno	r is making o	r has
ma	de applicati	ion for LET	TERS PATE	NT OF TH	HE UN	IITED STATES, which ap	plication has b	een duly exec	uted
bу	Assignor	concurren	tly herewith;	or file	d on	November 27, 2	2019 as	Application	No.
•	16/69	8,742	;						

WHEREAS, The Boeing Company, a corporation organized and existing under the laws of the State of Delaware, USA, having a place of business at 100 North Riverside Plaza, Chicago, Illinois 60606-1596, USA (hereinafter called "the Assignee"), is desirous of acquiring the entire right, title and interest in and to the Invention within the United States of America and its territorial possessions and all foreign countries, and in and to any United States or foreign LETTERS PATENT that may be granted therefor;

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IN TESTIMONY WHEREOF, I have signed this Assignment on the date specified below.

Ad Murphy 11/25/19

Alice A Murphy Date

RECORDED: 11/27/2019

PATENT REEL: 051133 FRAME: 0699