505556432 07/03/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5603229

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DAVID A. EDWARDS	09/18/2017
DAVID P. SCOTHERN	09/18/2017

RECEIVING PARTY DATA

Name:	ROLLS-ROYCE PLC
Street Address:	62 BUCKINGHAM GATE
City:	LONDON
State/Country:	GREAT BRITAIN
Postal Code:	SW1E 6AT

PROPERTY NUMBERS Total: 1

Property Type	Number		
Application Number:	16059370		

CORRESPONDENCE DATA

Fax Number:

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.

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ATTORNEY DOCKET NUMBER:	2106-023US01/6464US
NAME OF SUBMITTER:	KARI GREEN
SIGNATURE:	/Kari Green/
DATE SIGNED:	07/03/2019

Total Attachments: 4

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PATENT 505556432 REEL: 049661 FRAME: 0726

ASSIGNMENT (BEING FILED FOR DUAL PURPOSE UNDER 37 CFR 1.63(e)) For Application with Filing Date on or after September 16, 2012

ASSIGNMENT

(1-8)	Insert Legal Name(s) of	EDWARDS, David	d A		
(a-w)	Inventor(s)		SCOTHERN, David P			
					ideration paid to each of the undersigned, and hereby does assign, transfer and set o	
(9)	Insert Name of Assig	gnee	ROLLS-ROYCE	plc		
(10)	Insert Address of As	signee	62 Buckingham	Gate, London,	SW1E 6AT, Great Britain	
(11)	for the United States of America	ca as defi livisional,	ned in 35 U.S.C. §100, in continuation, internation ination certificates that m	the invention, and all, confirmation, and ay be granted on t	nd legal representatives, the entire right, to din all applications for patent including a substitute and reissue application(s), and a the invention known as	ny and all
	Number, or Foreign Application Number		6464 VT			
		(Attor	ney Docket No.	2106-0	23US01/6464 US)
(12)	Alternative	(12)	U.S. Application N	umber	16/059,370	
	Identification for					
	filed applications	filed		Augu	st 9, 2018	

- 1) Each undersigned agrees to execute all papers necessary in connection with any application and/or patent for the invention and also to execute separate assignments in connection with such applications and patents as the Assignee may deem necessary.
- 2) Each undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning any application or patents for the invention and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.
- 3) Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.
- 4) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reexamination a grant of a valid United States patent to the Assignee.
- 5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office and other issuing authorities to issue any and all patents resulting from said application(s) to the said Assignee, as Assignee of the entire interest, and covenants that he has full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement(s) in conflict herewith, and agrees that this assignment is binding on Assignor and Assignor's heirs, successors, assigns and legal representatives.
- 6) Each undersigned hereby grants the Assignee's agent the power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

PATENT REEL: 049661 FRAME: 0727

(13) Declaration

As an above named inventor, I hereby declare that:

I believe I am the original inventor or an original joint inventor of a claimed invention (or claimed design) in the above-identified application for which this declaration is being submitted.

The application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified application, including the claims, and am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

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.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

Invent	or					
(Print	name)	EDV	VARDS, David	4		
Date	180	Se	A 2017	Inventor Signature	ITELY (SEAT	L)
Consi					a) a Notary Public if within the U.S.A. (b) a U.S. ed before at least two witnesses who also sign here:	,
Date	18 SE	PT 2	2 ₁ 2-	Witness	Alkhai	
Date	18 SE	er a	2017	Witness	A	

ASSIGNMENT (BEING FILED FOR DUAL PURPOSE UNDER 37 CFR 1.63(e)) For Application with Filing Date on or after September 16, 2012

ASSIGNMENT

1-8)	insert Degui Tume(s) or		EDWARDS, David A			
,			SCOTHERN, Dav	SCOTHERN, David P		
					ideration paid to each of the undersigned and hereby does assign, transfer and set o	
9)	Insert Name of Assi	gnee	ROLLS-ROYCE	l plc		
(10)	Insert Address of A	ssignee	62 Buckingham	Gate, London	, SW1E 6AT, Great Britain	
(11)	for the United States of Ameri	ca as defi livisional	ned in 35 U.S.C. §100, in continuation, internation ination certificates that m	n the invention, an nal, confirmation, nay be granted on	and legal representatives, the entire right, d in all applications for patent including a substitute and reissue application(s), and the invention known as for a Rotating Component	any and all
	Number, or Foreign		6464 VT			
	Application Number	(Atto	ney Docket No.	2106-023	3US01/6464 US)
[12)	Alternative	(12)	U.S. Application N	lumber	16/059,370	
	Identification for			waaaaaaaaa		***************************************
	filed applications	filed		August 9,	, 2018	
	1) Fach undersigned as	rrees to	evecute all naners a	necessary in co	annection with any application a	nd/or natent

- Each undersigned agrees to execute all papers necessary in connection with any application and/or patent
 for the invention and also to execute separate assignments in connection with such applications and patents
 as the Assignee may deem necessary.
- 2) Each undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning any application or patents for the invention and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.
- 3) Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.
- 4) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reexamination a grant of a valid United States patent to the Assignee.
- 5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office and other issuing authorities to issue any and all patents resulting from said application(s) to the said Assignee, as Assignee of the entire interest, and covenants that he has full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement(s) in conflict herewith, and agrees that this assignment is binding on Assignor and Assignor's heirs, successors, assigns and legal representatives.
- 6) Each undersigned hereby grants the Assignee's agent the power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

PATENT REEL: 049661 FRAME: 0729

(13) Declaration

RECORDED: 07/03/2019

As an above named inventor, I hereby declare that:

I believe I am the original inventor or an original joint inventor of a claimed invention (or claimed design) in the above-identified application for which this declaration is being submitted.

The application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified application, including the claims, and am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

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.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

Invento	or				
(Print	,	COTHERN, Da			
Date	18 Sep	TEUBER 2017	Inventor Signa	ure <u>UScothern</u>	(SEAL)
Consu				e: (a) a Notary Public if within the igned before at least two witness	
Date	18 SEP	27	Witness	AlRhui	<u>. </u>
Date	18 SEPT	7017	Witness	AJ	

PATENT REEL: 049661 FRAME: 0730