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Attorney Docket No. 156113

S)		Please record the attached orig	inal document or copy thereof.							
1.	A.	Name of conveying parties:	2. A. Name and address of receiving party:							
		<ul><li>[1] Peter BEECROFT</li><li>[2] Leo Vivian LEWIS</li><li>[3] Marko BACIC</li></ul>	ROLLS-ROYCE PLC 65 BUCKINGHAM GATE, LONDON, SW1E 6AT, GREAT BRITAIN							
	B.	Additional name(s) of conveying party(ies) attached?	B. Additional name(s) & address(es) attached? ☐ Yes ☑ No							
3.	Α.	Nature of conveyance:								
	$\boxtimes$	Assignment								
		Security Agreement								
		Other								
	-	Execution Date: [1]: December 6, 2012; ]: November 30, 2012 and ]: December 7, 2012								
4.	×	This document is being filed together with a new applica	ation.							
	A.	Patent Application No. 13,735508	B. Patent No.(s)							
	Additional numbers attached?									
EN	C. Title of Application: IMPROVEMENTS IN OR RELATING TO GAS TURBINE									
غي	D. This Assignment is submitted for a dual purpose: (1) recording in the assignment database; and (2) for use in the above-identified application as the oath or declaration pursuant to 37 CFR 1.63(c).									
5.	Nan	ne and address of party to whom correspondence cerning document should be mailed:	6. Total number of applications and patents involved: 1							
	Na	ame: James A. Oliff	7. Please charge Deposit Account No. 15-0461 the total fee (37 CFR 3.41) in the amount of \$40.00.							
	Ad	idress: OLIFF & BERRIDGE, PLC P.O. Box 320850 Alexandria, VA 22320-4850	8. Credit any overpayineneon charge any lunden sount number 15-0461.  01 FC:8821 49.88 DA							
9.	To	tement and signature. the best of my knowledge and belief, the foregoing informa	ntion is true and correct and any attached copy is a true copy of the							
	Jan	nes A. Oliff, Registration No. 27,075 an Y. Liu, Registration No, 69,116	Date: <u>January 7, 2013</u>							

PATENT REEL: 029698 FRAME: 0976

Total number of pages including cover sheet, attachments, and document: 7

13735598

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

### ASSIGNMENT

	Insert	(1)	Peter BEECROFT	(2)	Leo Vivian LEWIS	
(1-8)	Legal Name(s)	(3)	Marko BACIC	(4)		
	of Inventor(s)	(5)		(6)		
		(7)		(8)		
		the un-	sideration of the sum of one dolla dersigned, the receipt and sufficie , and hereby does assign, transfer	ency of which are l	r good and valuable consideration paid to each of hereby acknowledged, each undersigned agrees to	
(9)	Insert Name of Assignee	(9)	ROLLS-ROYCE PLC		·	
(10)	Insert Address of Assignee	(10)	65 Buckingham Gate, London	, SWIE 6AT, Gre	eat Britain	
		(hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. § 100, in the invention, and in all applications for patent including any and all provisional, non-provisional, divisional, continuation, international, confirmation, substitute and reissue application(s), and all Letters Patent, extensions, reissues and reexamination certificates that may be granted on the invention known as				
(11)	Insert Identification such as Title, Case Number, or Foreign Application Number	(11)	Improvements in or Relating to	o Gas Turbine Eng	gine Control	
		(Attor	ney Docket No15611	.3	)	
(12)	Alternative	(12)	U.S. Application Number			
	Identification for			***************************************		
	filed applications	filed	January 7,	2013		

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

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 firm of OLIFF & BERRIDGE, PLC 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.

#### (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(s) opposite the undersigned name(s).

Date	8th December 2012	Inventor Signature	P Beecroft / THOUST	(SEAL)
Date		Inventor Signature	Ł Lewis	(SEAL)
Date		Inventor Signature	M Bacic	(SEAL)
Date		Inventor Signature		_ (SEAL)
Date		Inventor Signature		(SEAL)
Date		Inventor Signature		_ (SEAL)
Date		Inventor Signature		_ (SEAL)
Date		Inventor Signature		_ (SEAL)
neither	This assignment should preferably be signed, then it should be signed before at least two	ed before: (a) a Notary Pu witnesses who also sign h	blic if within the U.S.A. (b) a U.S. Consul if outside ere;	the U.S.A. If
Date	6th Decombo 2012.	Witness	for P Beccroft S. C.C.	.G.GARPER
Date	6th December 2012	Witness	for P Beecroft Roll CR.	Suarpe)
Date		Witness	for L Lewis	
Date		Witness	for L Lewis	
Date		Witness	for M Bacic	
Date		Witness	for M Bacic	****

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

### **ASSIGNMENT**

the une		y of which are	er good and valuable consideration paid to each of hereby acknowledged, each undersigned agrees to				
(7) In constitution of the unconstitution of	lersigned, the receipt and sufficience and hereby does assign, transfer an	(8) \$1.00) and other by of which are					
In cons the unc assign, (9)	lersigned, the receipt and sufficience and hereby does assign, transfer an	\$1.00) and other					
the und assign, (9)	lersigned, the receipt and sufficience and hereby does assign, transfer an	y of which are					
	ROLLS-ROYCE PLC						
(10)		ROLLS-ROYCE PLC					
	65 Buckingham Gate, London, SWIE 6AT, Great Britain						
the ent inventi- continu	ire right, fitle and interest for the Ur on, and in all applications for paten lation, international, confirmation, s ons, relssues and reexamination cer	nited States of A it including any substitute and re rtificates that m	America as defined in 35 U.S.C. \$100, in the and all provisional, non-provisional, divisional, eissue application(s), and all Letters Patent, ay be granted on the invention known as				
(Attor	ncy Docket No. <u>156113</u>		)				
(12)	U.S. Application Number						
filed	January 7,	2013	·				
	the entinventicentine extension (11)  (Attornal) (12)  filed to execute	the entire right, fitle and interest for the Univention, and in all applications for patent continuation, international, confirmation, extensions, rules use and reexamination cetters in the University of the International (11) Improvements in or Relating to (Attorney Docket No. 156113  (12) U.S. Application Number filed January 7, to execute all papers necessary in connect	(Attorney Docket No. 156113  (12) U.S. Application Number				

- for the invention and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with
- 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 relssue 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.

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

Date		Inventor Signature	P Beecroft	(SEAL)
			i	
Date	To mventor 2012.	Inventor Signature	L Lewis Avani	(SEAL)
Date		Inventor Signature	M Bacic	(SEAL)
Date		Inventor Signature		(SEAL)
Date		Inventor Signature		(SEAL)
Date		Inventor Signature		(SEAL)
Date		Inventor Signature		(SEAL)
Date		Inventor Signature		(SEAL)
neither,	This assignment should preferably be signer then it should be signed before at least two v	d before: (a) a Notary Pul vitnesses who also sign h	olic if within the U.S.A. (b) a U.S. Consul if outsete:	side the U.S.A. I
Date		Witness	for P Beccroft	
Date		Witness	for P Beecroft	ENTERNAL DE L'ANGEL DE
Date	30 HOVEMBER 2012	Witness	FOR LLEWIS J D Aulysm	Lu Por
Date	30 NEVEMBER 2012	Witness	for L Lewis	
Date		Witness	for M Bacic	
Date		Witness	for M Bacic	

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

## **ASSIGNMENT**

	Insert	(1)	Peter BEECROFT	(2)	Leo Vivian LEWIS		
(1-8)	Legal Name(s)	(3)	Marko BACIC	(4)			
	of Inventor(s)	(5)	٠	(6)			
		(7)		(8)			
		In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, the receipt and sufficiency of which are hereby acknowledged, each undersigned agrees to assign, and hereby does assign, transfer and set over to					
(9)	Insert Name of Assignee	(9)	ROLLS-ROYCE PLC				
(10)	Insert Address of Assignee	(10)	65 Buckingham Gate, London	, SWIE 6AT, Gro	at Britain		
		the ent invent contin	ire right, title and interest for the ion, and in all applications for paration, international, confirmation	United States of A tent including any n, substitute and re	cirs, successors, assigns and legal representatives, umerica as defined in 35 U.S.C. § 100, in the and all provisional, non-provisional, divisional, cissue application(s), and all Letters Patent, ay be granted on the invention known as		
(11)	Insert Identification such as Title, Case Number, or Foreign Application Number	(11)	Improvements In or Relating t	o Gas Turbine Eng	ine Control		
		(Attor	ney Docket No. 1561	13	)		
(12)	Alternative	(12)	U.S. Application Number				
	Identification for						
	filed applications	filed	January	7, 2013	·		

- 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.
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In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date		Inventor Signature	P Beecroft	(SEAL)			
Date		Inventor Signature	L Lewis	(SEAL)			
Date	07/12/12	Inventor Signature	M Bacic Harr	(SEAL)			
Date		Inventor Signature	**************************************	(SEAL)			
Date		Inventor Signature		(SEAL)			
Date		Inventor Signature		(SEAL)			
Date		Inventor Signature		(SEAL)			
Date	PA	Inventor Signature		(SBAL)			
This assignment should preferably be signed before; (a) a Notary Public if within the U.S.A. (b) a U.S. Consul if outside the U.S.A. If neither, then it should be signed before at least two witnesses who also sign here:							
Date		Witness	for P Beecroft				
Date		Witness	for P Beecroft				
Date	,	Witness	for L Lewis				
Date		Witness	for L Lewis	entral de la companya			
Date	7/12/2012.	Witness	FOR M BACIC CR SHARP				
Date	7/12/2012	Witness	for M Bacic (P. BAY	ISTOR)			