PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Andrew J DEIGHTON	04/20/2016
Pierre-Antoine J SIS	04/19/2016
Peter A EVANS	04/20/2016

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:	15138650

CORRESPONDENCE DATA

Fax Number: (703)836-2787

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: 703-836-6400 Email: email@oliff.com **Correspondent Name:** JAMES A. OLIFF Address Line 1: **OLIFF PLC**

Address Line 2: P.O. BOX 320850

Address Line 4: ALEXANDRIA, VIRGINIA 22320-4850

ATTORNEY DOCKET NUMBER: 170962 NAME OF SUBMITTER: **RYAN GUNNING** SIGNATURE: /Ryan Gunning/ **DATE SIGNED:** 04/26/2016

Total Attachments: 6

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

ASSIGNMENT

DEIGHTON, Andrew J; SIS, Pierre-Antoine J; EVANS, Peter A

Insert Legal Name(s) of

Inventor(s)

(1-8)

					nsideration paid to each of the undersigned, n, and hereby does assign, transfer and set o	
(9)	Insert Name of Assig	gnee	ROLLS-ROYCE plc			
(10)	Insert Address of Assignee		62 Buckinghar	n Gate, Londo	n, SWIE 6AT, Great Britain	
	for the United States of Ameri	ca as defi livisional	ned in 35 U.S.C. §100, continuation, internati	in the invention, unal, confirmation	s and legal representatives, the entire right, is and in all applications for patent including a n, substitute and reissue application(s), and a n the invention known as	ny and all
(11)	Insert Identification	(11)	A Bladed Rotor	or a Gas Turb	ine Engine	
	such as Title, Case Number, or Foreign		5812 NJR		And the second s	ADDITION OF THE PARTY OF THE PA
	Application Number	(Attor	mey Docket No.	170962		
(12)	Alternative	(12)	U.S. Application	Number	15/138,650	
	Identification for			A		
	filed applications	filed	Aı	oril 26, 2010	5	
	for the invention and as the Assignee may (2) Each undersigned at be declared concernit every way possible in 3) Each undersigned at necessary in connectiful Industrial Property or 4) Each undersigned at confirm by reissue or 5) Each undersigned at other issuing authorities Assignee of the entassigned, and that he agrees that this assigner representatives. 6) Each undersigned in the control of the control o	also to deem no grees to gany a obtaining cost to on with similar grees to reexamuthorized ics to is tire international international grees gy be not seen to the cost of the	execute separate a seessary, execute all paper, pplication or pateing evidence and gexecute all paper, claims or provision agreements, perform all affirmination a grant of estand and requests the sue any and all parest, and covenant executed, and will binding on Assignants the firm of Ceessary or desirab	ssignments in a snecessary in the for the investigation of the investigation of the Interest what is a valid United Commission tents resulting as that he has if I not execute, nor and Assignification of the pole in order to determine the contents of the pole in order to determine the interest of the pole in order to determine the interest in the pole in order to determine the interest in the pole in order to determine the interest in the pole in order to determine the interest in the pole in order to determine the interest in the pole in order to determine the interest in the interes	connection with any application at connection with such applications connection with any interference vention and to cooperate with the A with such interference. Its and perform any act which may rnational Convention for Protectio ich may be necessary to obtain, may a state patent to the Assignee. For of the U.S. Patent and Trademar from said application(s) to the said full right to convey the entire interest any agreement(s) in conflict herew mor's heirs, successors, assigns and cower to insert on this assignment assemply with the rules of the United at.	and patents which may ssignee in be n of aintain or k Office and d Assignee, est berein with, and I legal

(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.

Inven	tor			
(Print	name) ANDREW J DEI	GHTON		
Date	20-APRIL-2016	Inventor Signature	ARRYL	(SEAL)
Cons			a Notary Public if within the U.S.A. (b) a Ud before at least two witnesses who also sign	
Date	20-APRIL-2016	Witness	alle CALLIM VAS	204_
Date	20 - APRIL - 2016	Witness	FB BL RICHARD	ALLEN

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 Inventor(s)		DEIGHTON, Andrew J; SIS, Pierre-Antoine J; EVANS, Peter A			
			or (\$1.00) and other good and valuable consideration paid to each of the undersigned, the receipt and valuedged, each undersigned agrees to assign, and hereby does assign, transfer and set over to	1		
(9)	Insert Name of Assig	gnee	ROLLS-ROYCE plc			
(10)	Insert Address of Assignee		62 Buckingham Gate, London, SW1E 6AT, Great Britain	******		
	for the United States of Ameri provisional, non-provisional, o	ica as defi Jivisional	and Assignce's heirs, successors, assigns and legal representatives, the entire right, title and interestined in 35 U.S.C. § 100, in the invention, and in all applications for patent including any and all continuation, international, confirmation, substitute and reissue application(s), and all Letters ination certificates that may be granted on the invention known as	it		
(11)	Insert Identification	(11)	A Bladed Rotor for a Gas Turbine Engine			
	such as Title, Case Number, or Foreign		5812 NJR			
	Application Number	(Attor	rney Docket No. 170962)		
(12)	Alternative	(12)	U.S. Application Number 15/138,650			
	Identification for		**************************************	mence		
	filed applications	filed	April 26, 2016			
	for the invention and as the Assignee may c 2) Each undersigned as be declared concerning every way possible in 3) Each undersigned as necessary in connection industrial Property of 4) Each undersigned as confirm by reissue or 5) Each undersigned as other issuing authoriting a Assignee of the entassigned, and that he agrees that this assign representatives. 6) Each undersigned he identification that may	also to of leem negrees to gany a obtaining rees to on with similar grees to reexamuthorize its to istime interinted has not ament is ereby gay be need to be a controlled to the reexample.	execute all papers necessary in connection with any interference which may application or patents for the invention and to cooperate with the Assignee in ing evidence and going forward with such interference. Execute all papers and documents and perform any act which may be claims or provisions of the International Convention for Protection of	s		

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

(Print	name) PIERRE-ANTOINE I	s is	
Date	13 APRIL 2016	Inventor Signature	(SEAL)
Cons			a) a Notary Public if within the U.S.A. (b) a U.S. ed before at least two witnesses who also sign here:
Dute	19 APRIL 2016	Witness	INAN BRUNTON
Dute	20 APRILZONO.	Witness	A-RAM ROSERCIAN

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

ASSIGNMENT

(1-8)	Insert Legal Name(s) of Inventor(s)		DEIGHTON, Andrew J; SIS, Pierre-Antoine J; EVANS, Peter A		
	In consideration of the sum of sufficiency of which are hereb	one dolla y acknow	r (\$1.00) and other good and valuable consideration paid to each of the undersigned, the receipt an dedged, each undersigned agrees to assign, and hereby does assign, transfer and set over to	ıd	
(9)	Insert Name of Assig	nee	ROLLS-ROYCE plc		
(10)	Insert Address of As	signee	62 Buckingham Gate, London, SWIE 6AT, Great Britain	-	
	for the United States of Americ provisional, non-provisional, d	ca as defi livisional	and Assignee's heirs, successors, assigns and legal representatives, the entire right, title and interent in 35 U.S.C. § 100, in the invention, and in all applications for patent including any and all continuation, international, confirmation, substitute and reissue application(s), and all Letters ination certificates that may be granted on the invention known as	:st	
(11)	Insert Identification	(11)	A Bladed Rotor for a Gas Turbine Engine		
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(12)	Alternative	(12)	U.S. Application Number 15/138,650	union	
	Identification for				
	filed applications	filed	April 26, 2016		
	for the invention and a as the Assignee may d 2) Each undersigned ag be declared concerning every way possible in 3) Each undersigned ag necessary in connectic Industrial Property or 4) Each undersigned age confirm by reissue or 5) Each undersigned authorities Assignee of the ent assigned, and that he hagrees that this assign representatives. 6) Each undersigned here	also to deem ne grees to g any a obtaining rees to on with similar grees to reexamulthorize es to issince internas not ment is ereby greeby gr	execute all papers necessary in connection with any interference which may pplication or patents for the invention and to cooperate with the Assignee in ng evidence and going forward with such interference. execute all papers and documents and perform any act which may be claims or provisions of the International Convention for Protection of	nd	

Patent and Trademark Office for recordation of this document.

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

Invent	or					
(Print	name)	PETER	: ANTOM	EMS		
Date	20	APRIL	2016	Inventor Signature		(SEAL)
Consi			, ,	w .	a) a Notary Public if within the U.S.A. (b) a sed before at least two witnesses who also si	
Dute	<u> 20</u>	<u>APRIL</u>	<i>9</i> 016	Witness	DANIEL TIL SHIP	1967 78 6 2027 73273 1468 2006 1467 1468 1668 146
Date	20	APRIL	ನಿಂ16	Witness	VINAY SATTI S. Vinay	