11/08/2012 Mail Stop: DEPARTMENT OF COMMERCE **Assignment Recordation Services** Patent and Trademark Office Director of the U.S. Patent and Trademark Office P.O. Box 1450 103651350 Alexandria, VA 22313-1450 Attorney Docket No. 155457 Please record the attached original document or copy thereof. Name and address of receiving party: Name of conveying parties: ROLLS-ROYCE PLC 1. Dale Edward EVANS 65 BUCKINGHAM GATE, 2. Ian Colin Deuchar CARE LONDON, SWIE 6AT, **GREAT BRITAIN** Additional name(s) of conveying party(ies) attached? ☐ Yes ⊠ No Additional name(s) & address(es) attached? Nature of conveyance: ☐ Yes Assignment Merger Change of Name Security Agreement Other **Execution Date:** [ALL]: OCTOBER 11, 2012 This document is being filed together with a new application. Patent Application No. Patent No.(8) Additional numbers attached? 🔲 Yes 🛛 No C. Title of Application: ANNULUS FILLER D. Mais 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). Total number of applications and patents involved: $\underline{1}$ Name and address of party to whom correspondence concerning document should be mailed: Please charge Deposit Account No. 15-0461 the total Name: James A. Oliff fee (37 CFR 3.41) in the amount of \$40.00. Credit any overpayment or charge any underpayment to OLIFF & BERRIDGE, PLC Address: deposit account number 15-0461 LLINS 66986032 15046 P.O. Box 320850 Alexandria, VA 22320-4850 ห์นี้ ซีซี ซีที่ Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the Date: November 1, 2012 James A. Oliff, Registration No. 27,075 Steven D. Jinks, Registration No. 62,760 Total number of pages including cover sheet, attachments, and document: 3

> PATENT REEL: 029361 FRAME: 0190

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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 "

	Insert	(1)	DALE EDWARD EVANS	45.4	(2)	IAN COLIN DEUCHAR CARE		
1-8)	Legal Name(s)	(3)			(4)			
	of Inventor(s)	(5)			(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, Great 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, roissues 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)	ANNULUS FILLER					
			4984 PJB					
		(Attorney Docket No. 155475						
(12)	Alternative	(12)	U.S. Application Number					
	Identification for filed applications	filed	·	•		1, 2012		
	1) Each undersigned sort	nec to ever	ute all papers necessary in co	nnection wit	h any ar	plication 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 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.

Declaration (13)

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.

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THE R. P.

PATENT REEL: 029361 FRAME: 0191

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

Date	11 October 2012	Inventor Signature	Dale & Lam. Dale Edward Evans	(SEAL)
Date	11th October 2012	Inventor Signature	IAN COLIN DEUCHAR CARE	(SEAL)
Date		Inventor Signature		_ (SEAL)
Date -		Inventor Signature		_ (SEAL)
Date		Inventor Signature	3 <u>1947</u> -	_ (SEAL)
Date		Inventor Signature		_ (SEAL)
Date		Inventor Signature	٠	_ (SEAL)
Date		Inventor Signature		_ (SBAL)
neithei	This assignment should preferably be signed; then it should be signed before at least two wi	before: (a) a Notary Pu tnesses who also sign h	blic if within the U.S.A. (b) a U.S. Consul if outside tere:	the U.S.A. If
Date	11TH OGOBER 2012.	Witness	Me Bet set	
Date	11th October 2012	Witness	Deesen	

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