Mail Stop: Assignment Recordation Services Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450 Please record the attached document. Total number of pages including cover shee	RECORDATION FORM C PATENTS ON et, attachments, and document	Patent and Trademark Office Attorney Docket No. 153061					
A. Name of conveying parties: 1. Anthony Gordon R 2. Robert John MITC B. Additional name(s) of conveying	AZZELL HELL	2. A. Name and address of receiving party: ROLLS-ROYCE PLC 65 BUCKINGHAM GATE, LONDON SW1E 6AT, GREAT BRITAIN B. Additional name(s) & address(es) attached?					
3. A. Nature of conveyance: Assignment Security Agreement Other B. Execution Date: [1]: MARCH 22, 2012; [2]: FEBRUARY 16, 20	Merger Change of Name	□Yes ⊠ No					
4. A. Patent Application No. 13/439,230 B. Patent No.(s) Additional numbers attached? ☐ Yes ☒ No C. Title of Application: DETERMINATION OF PIPE INTERNAL CROSS-SECTIONAL AREA							
5. Name and address of party to whom of concerning document should be mailed Name: James A. Oliff Address: Oliff & Berridge P.O. Box 32085 Alexandria, VA 2232 Phone Number: 703-8 Fax Number: 703-83	e., PLC 0 20-4850 36-6400	 Total number of applications and patents involved: 1 Please charge Deposit Account No. 15-0461 the total fee (37 CFR 3.41) in the amount of \$40.00. Credit any overpayment or charge any underpayment to deposit account number 15-0461. 					
O. Statement and signature	lief, the foregoing information	n is true and correct and any attached copy is a true copy of the Date: April 4, 2012					

PATENT REEL: 027992 FRAME: 0888

ASSIGNMENT

(14) Insert Name of Assigner (15) Assigner (16) Assigner (16) Assigner (16) In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, each undersigned agrees to sessign, and hereby does assign, transfer and set over to to to the undersigned agrees to sessign, and hereby does assign, transfer and set over to to to the undersigned agrees to sessign, and hereby does assign, transfer and set over to to to the undersigned agrees to sessign, and hereby does assign, transfer and set over to to to the undersigned agrees to sessign, and hereby does assign, transfer and set over to to to the undersigned agrees to sessign, and hereby does assign, transfer and set over the center right, title and instruction. SWIE 6AT, Clreat Britation (hereinstated, estimation, applications), and all provisional, and all provisional, divisional, continuation, interminents, confirmation, applications, publicated and all letters Patent, extensions, reliavues and receasination certificates that may be granted on the invention known as the Stiffs, Case Number, or Foreign Application Number (Attorney Docket No. 1530-61 Application Number (12) Insert Date of Siguing of Application for Britation (13) Alternative (13) U.S. application Secial Number 13/4339,230 (14) Insert Date of Siguing of Application for Britation (14) Application for Britation for Britation (15) Alternative (15) Alternative (16) Insert Date of Siguing of Application for Britation (15) Alternative (17) Insert Date of Siguing of Application for Britation (15) Alternative (18) Alternative (19) U.S. application Secial Number 13/4339,230 (19) Insert Date of Siguing of Application for Britation of Price Internal Cross-Sectional Area (15) Autority of Britation for Britation			(1)	Anthony Gordon RAZZELL	(4)		
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(9) Insert Namu of Assignee (10) Insert Address of Assignee (10) 65 Buckingham Gato, London SW1B 6AT, Great Britain (Incatinate designated as the Assignee) and Assignee heirs, successors, assigns and legal representative, the entire tight, tide and interest for the United States of America as defined in \$5 U.S.C. \$100, in the invention, and in all applications for patient incheding any and all provisionals, and all Letters Parant, continuation, international, confidentiation, and and all Letters Parant, extensions, research and continuation and any operation of Pipe Internal Cross-Sectional Area (11) Determination of Pipe Internal Cross-Sectional Area (11) Determination of Pipe Internal Cross-Sectional Area (12) Insert Date of Signing of (12) on Application Number (13) U.S. application Sorial Number (13) Alternative (13) U.S. application Sorial Number (14) Application (13) Alternative (13) U.S. application Sorial Number (14) Application for Bled applications for Bled applications for Bled applications of the invention, and any potentially issuing thereon, and also to execute separate assignment in connection with such applications of the invention, and any potentially issuing thereon, and also to execute separate assignment in connection with such applications application or continuation or division thereof, or any patent or reissue application based thereon, for the invention, and to cooperate with the Assignee in over year possible in domain generates and going forward with such target processory in connection of the invention, and to cooperate with the Assignee in over year possible in domain generates and going forward with such target processory in continuation or division thereof, or any patent or reissue application based thereon, for the invention, and to cooperate with the Assignee and possible or an application or continuation or division thereof, or any patent or reissue application based thereon, for the	(1-0)	Name(s)	, ,		(6)		
Assignee (10) Insert Address of Assignee (assignated as the Assignee) and Assignee's beits, 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 peatent including any and all provisional, divisional, continuation, international, confirmation, substitute and reissue applications(), and all Letters have extensions, instanced on a substitute and reissue applications(), and all Letters have extensions. Instanced on the invention of the invention			each o	In consideration of the sum of one f the undersigned, each undersigned	dollar (\$1.00) d agrees to as	and other good and valuable consideration paid sign, and hereby does assign, transfer and set ove	to :r
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ASSIGNMENT

			MODIGITIES		
		(1)	Anthony Gordon RAZZELL		
(1-8)	Insert	(2)	Robert John MITCHELL	(5)	1
	Name(s) of Inventor(s)	(3)		(6)	
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(9)	Insert Name of	(9)	Rolls-Royce plc		
(10)	Assignee Insert Address of	(10)	65 Buckingham Gate, London SV	/IE 6AT. Great Britain	
	Assignee	(hereic the ent inventi	nafter designated as the Assignce) an ire right, title and interest for the Union, and in all applications for patenuation, international, confirmation, sions, reissues and reexamination cer	d Assignce's heirs, success ited States of America as d including any and all probabilities and reissue applications that may be granted.	risional, non-provisional, divisional, cation(s), and all Letters Patent,
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	In witness whereof, exec	uted by th	e undersigned on the date(s) opp	osite the undersigned na	me(s). (SEAL)
Date			Inventor Signature A G Razzell		(3676)
Date	16/02/12		Inventor Signature R J Mitchell	middle	(SEAL)
Date	•		Inventor Signature		(SEAL)
Date			Inventor Signature		(SEAL)
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Date	16/02/2012		Witness(es) for R J Mitchell	186 Hillich	
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