IAPOSRec'd PCT 07 FEB 2008

Attorney Docket No.

Mail Stop: **Assignment Recordation Services** Director of the U.S. Patent and Trademark Office P.O. Box 1450

Alexandria, VA 22313-1450

02-12-2008

103481534

Patent and Trademark Office

135598

<b> </b>		
	Please record the attached orig	rinal document or copy thereof.
3.	A. Name of conveying parties:  [1] Gerald William HOUGH [2] Dean Samuel Robert WHITESIDE [3] Nicholas Barrington ORCHARD  B. Additional name(s) of conveying party(ies) attached?  ☐ Yes ☒ No  A. Nature of conveyance:  ☐ Assignment ☐ Merger  ☐ Security Agreement ☐ Change of Name  ☐ Other  B. Execution Date: [1]: January 13, 2008 [2]: January 16, 2008 and [3]: January 11, 2008	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?  ☐ Yes ☒ No
4.	A. Patent Application No.(s)  Additional numbers atta  C. Title of Application: APPARATUS FOR MEASU	B. Patent No.(s)
5.	Name and address of party to whom correspondence concerning document should be mailed:  Name: James A. Oliff 00000069 21332622	<ul> <li>6. Total number of applications and patents involved: 1</li> <li>7. A. Total fee (37 CFR 3.41)\$ 40.00</li> <li>B. Enclosed (Check No. 202204)</li> </ul>
	Address: OLIFF & BERRIDGE, PLC P.O. Box 320850 Alexandria, VA 22320-4850	Credit any overpayment or charge any underpayment to deposit account number 15-0461.
9.	the original document	ation is true and correct and any attached copy is a true copy of  Date: February 7, 2008
	James A. Oliff Registration No. 27,075 Stephen P. Catlin Registration No. 36,101	· · · · · · · · · · · · · · · · · · ·

Total number of pages including cover sheet, attachments, and document: 3

**PATENT REEL: 020508 FRAME: 0580** 

## **ASSIGNMENT**

		(1)	GERALD WILLIAM HOUGH (5)	
(1-8)	Insert	(2)	NICHOLAS BARRINGTON (6) ORCHARD	
	Name(s) of Inventor(s)	(3)	DEAN. SAMUEL ROBERT (7)	
		(4)	(8)	
		to eac	In consideration of the sum of one dollar (\$1.00) and other good as n of the undersigned, each undersigned agrees to assign, and hereby	
<b>)</b> )	Insert Name of Assignee	(9)	Rolls-Royce pic	
0)	Insert Address of Assignee	(10)	65 Buckingham Gate, London SW1E 6AT, Great Britain	
		the entinvent contin	nafter designated as the Assignee) and Assignee's heirs, successors, as ire right, title and interest for the United States of America as defined ion, and in all applications for patent including any and all provisions patent international, confirmation, substitute and reissue applications, reissues and reexamination certificates that may be granted on the state of t	f in 35 U.S.C. §100, in the al, non-provisional, divisional, (s), and all Letters Patent,
1)	Insert	(11)	APPARATUS FOR MEASURING WALL THICKNESSES OF C	OBJECTS
	Identification such as Title, Case		3575 Brck	
	Number, or Foreign Application Number	(Attor	ney Docket No. 135598	
	Application Number		ich the undersigned has (have) executed an application for patent i	n the United States of Ameri
			n date herewith or	in the Office States of America
2)	Insert Date of	(1.5)		
	Signing of Application	(12)	on	
3)	Alternative	(13)	U.S. application Serial Number	
	Identification for	(/		
	Identification for	filed	February 7 2008	
plicat ny app	filed applications  1) Each undersigned agrees applications for the inventior ions and patents as the Assig 2) Each undersigned agrees lication or continuation or di	n, and any gnee may s to execu ivision the	February 7, 2008  Ite all papers necessary in connection with any application and any patent(s) issuing thereon, and also to execute separate assignment deem necessary.  Ite all papers necessary in connection with any interference which pereof, or any patent or reissue application based thereon, for the integer evidence and going forward with such interference.	ts in connection with such
oplication of a polication of	filed applications  1) Each undersigned agreed applications for the inventior ions and patents as the Assig 2) Each undersigned agreed illustrion or continuation or dignee in every way possible in 3) Each undersigned agreed or provisions of the Internation 4) Each undersigned agreed nation a grant of a valid Unit 5) Each undersigned author of the United States resulting to convey the entire interesting that this assignment is bit 6) Each undersigned hereby ation that may be necessary	s to execu- n, and any gnee may s to execu- ivision the n obtaining s to execu- pos to perform ted States rizes and g from sai t herein a nding on y grants ti	te all papers necessary in connection with any application and any patent(s) issuing thereon, and also to execute separate assignment deem necessary.  It all papers necessary in connection with any interference which receof, or any patent or reissue application based thereon, for the interference and going forward with such interference.  It all papers and documents and perform any act which may be ne ention for Protection of Industrial Property or similar agreements.  The all affirmative acts which may be necessary to obtain, maintain	ts in connection with such may be declared concerning vention, and to cooperate with cessary in connection with or confirm by reissue or ce to issue any and all Letters trest, and covenants that he have ments in conflict herewith ignment any further
ey app e Assi aims c exami exami tents Il righ d agre	filed applications  1) Each undersigned agrees applications for the inventior ions and patents as the Assig 2) Each undersigned agrees included in the continuation or dignee in every way possible in 3) Each undersigned agrees or provisions of the Internation 4) Each undersigned agrees nation a grant of a valid Unit 5) Each undersigned author of the United States resulting at to convey the entire interest est that this assignment is bit 6) Each undersigned herebation that may be necessary in of this document.	s to execu n, and any gnee may s to execu ivision the n obtainin s to execu onal Conv s to perfor ted States rizes and g from sai t herein a nding on y grants to or desiral	te all papers necessary in connection with any application and any patent(s) issuing thereon, and also to execute separate assignment deem necessary.  Ite all papers necessary in connection with any interference which receof, or any patent or reissue application based thereon, for the interference and going forward with such interference. It is all papers and documents and perform any act which may be ne ention for Protection of Industrial Property or similar agreements. It is all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  It requests the Commissioner of the U.S. Patent and Trademark Office dapplication(s) to the said Assignee, as Assignee of the entire interesting and that he has not executed, and will not execute, any againm and his heirs, successors, assigns and legal representatives. The firm of OLIFF & BERRIDGE, PLC the power to insert on this assign in order to comply with the rules of the United States Patent and	may be declared concerning wention, and to cooperate with cessary in connection with or confirm by reissue or ce to issue any and all Letters erest, and covenants that he have ments in conflict herewith ignment any further d Trademark Office for
y appe Assims of examination tents in the control of the control o	filed applications  1) Each undersigned agreed applications for the inventior ions and patents as the Assig 2) Each undersigned agreed illustrion or continuation or dignee in every way possible in 3) Each undersigned agreed reprovisions of the Internation 4) Each undersigned agreed nation a grant of a valid Unit 5) Each undersigned author of the United States resulting to convey the entire interestices that this assignment is bit 6) Each undersigned hereby ation that may be necessary if ion of this document.  In witness whereof, executive interestication is the content of the content interestication that may be necessary in the content interestication of this document.	s to execute, and any gnee may s to execute in obtaining s to execute on all Converse to perform said g from said anding on an execute or desirate ted by the ted by the execute or desirate ted by the execute or execute ted to execute the execute of the	te all papers necessary in connection with any application and any patent(s) issuing thereon, and also to execute separate assignment deem necessary.  It all papers necessary in connection with any interference which is exect, or any patent or reissue application based thereon, for the interference and going forward with such interference.  It all papers and documents and perform any act which may be ne ention for Protection of Industrial Property or similar agreements.  It all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  It requests the Commissioner of the U.S. Patent and Trademark Officed application(s) to the said Assignee, as Assignee of the entire interesting and that he has not executed, and will not execute, any again and his heirs, successors, assigns and legal representatives. The firm of OLIFF & BERRIDGE, PLC the power to insert on this assigned in order to comply with the rules of the United States Patent and the undersigned on the date(s) opposite the United States Patent and the undersigned on the date(s) opposite the United States Patent and the undersigned on the date(s) opposite the United States Patent and the undersigned on the date(s) opposite the United States Patent and the undersigned on the date(s) opposite the United States Patent and the undersigned on the date(s) opposite the United States Patent and the undersigned on the date(s) opposite the United States Patent and the undersigned on the date(s) opposite the United States Patent and the undersigned on the date(s) opposite the United States Patent and the undersigned on the date(s) opposite the United States Patent and the undersigned on the date(s) opposite the United States Patent and the undersigned on the date(s) opposite the United States Patent and the united S	ts in connection with such may be declared concerning vention, and to cooperate with cessary in connection with or confirm by reissue or to issue any and all Letters erest, and covenants that he have ements in conflict herewith ignment any further d Trademark Office for
y appe Assims of examinations of the second agreement	filed applications  1) Each undersigned agreed applications for the inventior ions and patents as the Assig 2) Each undersigned agreed lication or continuation or dignee in every way possible in 3) Each undersigned agreed are provisions of the Internation 4) Each undersigned agreed nation a grant of a valid Unit 5) Each undersigned authors to convey the entire interest to convey the entire interest that this assignment is bin 6) Each undersigned hereby ation that may be necessary if ion of this document.  In witness whereof, executed the executed agreed agreed authors that may be necessary in the entire interest at the executed agreed agreed authors that may be necessary in the entire interest at the executed agreed agre	s to execute, and any gnee may s to executivision the nobtaining sto executors to perform ted States rizes and g from said therein anding on y grants to desirable ted by the states and the states are the states and the states are the states and the states are the states are the states and the states are t	te all papers necessary in connection with any application and any patent(s) issuing thereon, and also to execute separate assignment deem necessary.  It all papers necessary in connection with any interference which receof, or any patent or reissue application based thereon, for the interference and going forward with such interference.  It all papers and documents and perform any act which may be necessary to obtain maintain patent for Protection of Industrial Property or similar agreements.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In a Assignee of the U.S. Patent and Trademark Office application(s) to the said Assignee, as Assignee of the entire intersigned, and that he has not executed, and will not execute, any again and his heirs, successors, assigns and legal representatives.  In a BERRIDGE, PLC the power to insert on this assigned in order to comply with the rules of the United States Patent and the undersigned on the date(s) opposite the United States Patent and Europe Signature GERALDER GERALDER HOOGH.	may be declared concerning vention, and to cooperate with cessary in connection with or confirm by reissue or ce to issue any and all Letters erest, and covenants that he have ements in conflict herewith ignment any further d Trademark Office for
plicate y app app app app app app app app app a	filed applications  1) Each undersigned agreed applications for the inventior ions and patents as the Assig 2) Each undersigned agreed illustrion or continuation or dignee in every way possible in 3) Each undersigned agreed reprovisions of the Internation 4) Each undersigned agreed nation a grant of a valid Unit 5) Each undersigned author of the United States resulting to convey the entire interestices that this assignment is bit 6) Each undersigned hereby ation that may be necessary if ion of this document.  In witness whereof, executive interestication is the content of the content interestication that may be necessary in the content interestication of this document.	s to execute, and any gree may s to executivision the nobtaining s to executional Converse and g from said therein a noding on y grants the cordesirated by the second cordesirated by the second cordesirated by the second cordesirated by the second cordesirated cord	te all papers necessary in connection with any application and any patent(s) issuing thereon, and also to execute separate assignment deem necessary.  Ite all papers necessary in connection with any interference which receof, or any patent or reissue application based thereon, for the interference and going forward with such interference.  Ite all papers and documents and perform any act which may be neention for Protection of Industrial Property or similar agreements.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In a signed, and the heas not executed, and will not execute, any again mand his heirs, successors, assigns and legal representatives.  In a firm of OLIFF & BERRIDGE, PLC the power to insert on this assigned in order to comply with the rules of the United States Patent and Carlotter and C	may be declared concerning wention, and to cooperate with cessary in connection with or confirm by reissue or ce to issue any and all Letters erest, and covenants that he have ments in conflict herewith dignment any further d Trademark Office for (SEAL)
plicate y app y ap	filed applications  1) Each undersigned agreed applications for the inventior ions and patents as the Assig 2) Each undersigned agreed lication or continuation or dignee in every way possible in 3) Each undersigned agreed reprovisions of the Internation 4) Each undersigned agreed nation a grant of a valid Unit 5) Each undersigned authors to convey the entire interest that this assignment is bin 6) Each undersigned hereby ation that may be necessary if ion of this document.  In witness whereof, executed the same and the	s to execute, and any gnee may s to execute in obtaining s to execute the states and the states and it therein a nding on y grants the states and the states are states are states are states and the states are stat	te all papers necessary in connection with any application and any patent(s) issuing thereon, and also to execute separate assignment deem necessary.  It all papers necessary in connection with any interference which receof, or any patent or reissue application based thereon, for the interference and going forward with such interference.  It all papers and documents and perform any act which may be necessary to obtain, maintain patent for Protection of Industrial Property or similar agreements.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee, and the Interference.  In all papers and documents and perform any interference which interference.  In all papers and documents and perform any interference.  In all papers and documents and perform any interference.  In all papers and documents and perform any interference.  In all papers and documents application based thereon, for the interference.  In all papers and documents and perform any interference.  In all papers and documents and perform any interference.  In all papers and documents and perform any interference.  I	may be declared concerning vention, and to cooperate with cessary in connection with or confirm by reissue or ce to issue any and all Letters erest, and covenants that he have ments in conflict herewith ignment any further d Trademark Office for (SEAL)
plicate y app e Assims cexamitents Il right dagree condate te te te te te	filed applications  1) Each undersigned agrees applications for the inventior ions and patents as the Assig 2) Each undersigned agrees incertion or continuation or dignee in every way possible in 3) Each undersigned agrees or provisions of the Internation 4) Each undersigned agrees nation a grant of a valid Unit 5) Each undersigned author of the United States resulting to convey the entire interest to convey the entire interest est that this assignment is shifted by Each undersigned hereby ation that may be necessary into of this document.  In witness whereof, executed the same and the same accordance in the same	s to execute, and any gree may s to executivision the nobtaining s to executional Converse and g from said therein a noting on the converse states and the second converse states are second converse states and the second converse states are second converse states and the second converse states are second converse states and the second converse states are second converse states and the second converse states are second converse states and the second converse states are second converse states and the second converse states are second converse states and the second converse states are second converse states and the second converse states are second converse states and the second converse states are second converse states and the second converse states are second converse states are second converse states and the second converse states are second converse states and the second converse states are second converse states are second converse states are second converse states are second	te all papers necessary in connection with any application and any patent(s) issuing thereon, and also to execute separate assignment deem necessary.  Ite all papers necessary in connection with any interference which receof, or any patent or reissue application based thereon, for the interference and going forward with such interference.  Ite all papers and documents and perform any act which may be neention for Protection of Industrial Property or similar agreements.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In a control of the U.S. Patent and Trademark Office application(s) to the said Assignee, as Assignee of the entire interesting and that he has not executed, and will not execute, any again mand his heirs, successors, assigns and legal representatives.  In a firm of OLIFF & BERRIDGE, PLC the power to insert on this assigned in order to comply with the rules of the United States Patent and a undersigned on the date(s) opposite the undersigned name(s).  Inventor Signature GERADOMENT HOUGH  Inventor Signature DEAN SAMUEL ROBERT WH  Inventor Signature DEAN SAMUEL ROBERT WH  Inventor Signature	may be declared concerning vention, and to cooperate with cessary in connection with or confirm by reissue or ce to issue any and all Letters erest, and covenants that he have ements in conflict herewith ignment any further d Trademark Office for (SEAL)
pplicate y app y a	filed applications  1) Each undersigned agrees applications for the inventior ions and patents as the Assig 2) Each undersigned agrees ilication or continuation or dignee in every way possible in 3) Each undersigned agrees or provisions of the Internation 4) Each undersigned agrees nation a grant of a valid Unit 5) Each undersigned author of the United States resulting to convey the entire interest to convey the entire interest ess that this assignment is bit 6) Each undersigned hereby ation that may be necessary if ion of this document.  In witness whereof, executed the state of the convey the entire interest at the state of the undersigned hereby at the state of the stat	s to execute, and any gnee may s to executivision the sto executional Convicted States rizes and g from sait therein a nding on y grants to desirate ted by the	te all papers necessary in connection with any application and any patent(s) issuing thereon, and also to execute separate assignment deem necessary.  Ite all papers necessary in connection with any interference which recof, or any patent or reissue application based thereon, for the interference and going forward with such interference.  Ite all papers and documents and perform any act which may be ne ention for Protection of Industrial Property or similar agreements.  It all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  It is a straightful and the said Assignee, as Assignee of the entire interesting and that he has not executed, and will not execute, any again and his heirs, successors, assigns and legal representatives.  It is a series of the United States Patent and Control of Course and the United States Patent and the condensation of the United States Patent and the condensation of the United States Patent and the	may be declared concerning vention, and to cooperate with cessary in connection with or confirm by reissue or to to issue any and all Letters erest, and covenants that he have ments in conflict herewith dignment any further d Trademark Office for (SEAL)  ITESIDE (SEAL)  (SEAL)  (SEAL)
ay applications of a second at the second at	filed applications  1) Each undersigned agrees applications for the inventior ions and patents as the Assig 2) Each undersigned agrees liteation or continuation or dignee in every way possible in 3) Each undersigned agrees or provisions of the Internation 4) Each undersigned agrees nation a grant of a valid Unit 5) Each undersigned author of the United States resulting to convey the entire interest est that this assignment is bit 6) Each undersigned hereby ation that may be necessary in of this document.  In witness whereof, executed the state of the executed the execute	s to execute, and any gnee may s to executivision the nobtaining s to executional Converse and g from said therein anding on the converse state or desirate the converse state of the converse state o	te all papers necessary in connection with any application and any patent(s) issuing thereon, and also to execute separate assignment deem necessary.  Ite all papers necessary in connection with any interference which receof, or any patent or reissue application based thereon, for the interference and going forward with such interference.  Ite all papers and documents and perform any act which may be neention for Protection of Industrial Property or similar agreements.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In a signed, and the heas not executed, and will not execute, any again mand his heirs, successors, assigns and legal representatives.  In a firm of OLIFF & BERRIDGE, PLC the power to insert on this assigned in order to comply with the rules of the United States Patent and Inventor Signature	may be declared concerning vention, and to cooperate with cessary in connection with or confirm by reissue or ce to issue any and all Letters trest, and covenants that he have ments in conflict herewith ignment any further d Trademark Office for (SEAL)  CCHARD (SEAL)  (SEAL)  (SEAL)  (SEAL)
aims of examinatents II right ad agree cordate ate ate ate ate ate ate ate ate ate	filed applications  1) Each undersigned agrees applications for the inventior ions and patents as the Assig 2) Each undersigned agrees incation or continuation or dignee in every way possible in 3) Each undersigned agrees or provisions of the Internation 4) Each undersigned agrees nation a grant of a valid Unit 5) Each undersigned author of the United States resulting to convey the entire interest to convey the entire interest ess that this assignment is bit 6) Each undersigned hereby ation that may be necessary if ion of this document.  In witness whereof, executed the state of the convey the entire interest at the state of the undersigned hereby at the state of the state of the convey the entire interest at the same state of the conve	s to execute, and any gnee may s to executivision the sto performed States rizes and g from sait therein a nding on y grants to desirate the states and the states are the states and the states and the states are the states and the states are the	te all papers necessary in connection with any application and any patent(s) issuing thereon, and also to execute separate assignment deem necessary.  It all papers necessary in connection with any interference which is repeof, or any patent or reissue application based thereon, for the interference and going forward with such interference.  It all papers and documents and perform any act which may be necessary and documents and perform any act which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patents in a patents.  In all affirmative acts which may be necessary to obtain, maintain patents.  In all affirmative acts which may be necessary to obtain, maintain patents.  In all affirmative acts which may be necessary to obtain, maintain patents.  In all affirmative acts which may be necessary to obtain, maintain patents.  In all patents and perform any act which may be necessary to obtain, maintain patents.  In all patents are application based thereon, for the interference.  In all patents are application based thereon, for the interference.  In all patents are application based thereon, for the interference.  In all patents are application based thereon, for the interference.  In all patents are application	may be declared concerning vention, and to cooperate with cessary in connection with or confirm by reissue or ce to issue any and all Letters erest, and covenants that he have ements in conflict herewith dignment any further d Trademark Office for (SEAL)  ITESIDE (SEAL)  (SEAL)  (SEAL)  (SEAL)  (SEAL)
ate	filed applications  1) Each undersigned agrees applications for the inventior ions and patents as the Assig 2) Each undersigned agrees incertion or continuation or dignee in every way possible in 3) Each undersigned agrees or provisions of the Internation 4) Each undersigned agrees nation a grant of a valid Unit 5) Each undersigned author of the United States resulting to convey the entire interest to convey the entire interest its stat this assignment is bit 6) Each undersigned hereby ation that may be necessary if ion of this document.  In witness whereof, executed 13 1000 2000 2000 2000 2000 2000 2000 2	s to execute, and any gnee may s to executivision the nobtaining s to executional Converse and g from said therein a noting on the states and the search or desirate the search of the s	te all papers necessary in connection with any application and any patent(s) issuing thereon, and also to execute separate assignment deem necessary.  It all papers necessary in connection with any interference which is treef, or any patent or reissue application based thereon, for the interference, and going forward with such interference.  It all papers and documents and perform any act which may be neention for Protection of Industrial Property or similar agreements. In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee of the U.S. Patent and Trademark Office dapplication(s) to the said Assignee, as Assignee of the entire intessigned, and that he has not executed, and will not execute, any against and his heirs, successors, assigns and legal representatives. The firm of OLIFF & BERRIDGE, PLC the power to insert on this associe in order to comply with the rules of the United States Patent and a undersigned on the date(s) opposite the indersigned name(s).  Inventor Signature	ts in connection with such may be declared concerning vention, and to cooperate with cessary in connection with or confirm by reissue or ce to issue any and all Letters trest, and covenants that he have ments in conflict herewith ignment any further d Trademark Office for (SEAL)  ITESIDE (SEAL)  (SEAL)  (SEAL)  (SEAL)  (SEAL)  (SEAL)  (SEAL)
ate  ate  ate  ate  ate  ate  ate  ate	filed applications  1) Each undersigned agrees applications for the inventior ions and patents as the Assig 2) Each undersigned agrees incertion or continuation or dignee in every way possible in 3) Each undersigned agrees or provisions of the Internation 4) Each undersigned agrees nation a grant of a valid Unit 5) Each undersigned author of the United States resulting to convey the entire interest to convey the entire interest its stat this assignment is bit 6) Each undersigned hereby ation that may be necessary if ion of this document.  In witness whereof, executed 13 1000 2000 2000 2000 2000 2000 2000 2	s to execute, and any gnee may s to executivision the nobtaining s to executional Converse and g from said therein a noting on the states and the search or desirate the search of the s	te all papers necessary in connection with any application and any patent(s) issuing thereon, and also to execute separate assignment deem necessary.  It all papers necessary in connection with any interference which exects of or any patent or reissue application based thereon, for the interference and going forward with such interference.  It all papers and documents and perform any act which may be ne ention for Protection of Industrial Property or similar agreements. In mall affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In requests the Commissioner of the U.S. Patent and Trademark Office application(s) to the said Assignee, as Assignee of the entire interesting and his heirs, successors, assigns and legal representatives. The firm of OLIFF & BERRIDGE, PLC the power to insert on this assigned in order to comply with the rules of the United States Patent and Patent or Signature  Inventor Signature	ts in connection with such may be declared concerning vention, and to cooperate with cessary in connection with or confirm by reissue or ce to issue any and all Letters trest, and covenants that he have ments in conflict herewith ignment any further d Trademark Office for (SEAL)  ITESIDE (SEAL)  (SEAL)  (SEAL)  (SEAL)  (SEAL)  (SEAL)  (SEAL)
pplicate ny app he Assi laims of eexami atents ull right and agree coordate ate ate ate ate ate ate ate ate ate	filed applications  1) Each undersigned agrees applications for the inventior ions and patents as the Assig 2) Each undersigned agrees incertion or continuation or dignee in every way possible in 3) Each undersigned agrees or provisions of the Internation 4) Each undersigned agrees nation a grant of a valid Unit 5) Each undersigned author of the United States resulting to convey the entire interest to convey the entire interest its stat this assignment is bit 6) Each undersigned hereby ation that may be necessary if ion of this document.  In witness whereof, executed 13 1000 2000 2000 2000 2000 2000 2000 2	s to execute, and any gnee may s to executivision the nobtaining s to executional Converse and g from said therein a noting on the states and the search or desirate the search of the s	te all papers necessary in connection with any application and any patent(s) issuing thereon, and also to execute separate assignment deem necessary.  It all papers necessary in connection with any interference which is treef, or any patent or reissue application based thereon, for the interference, and going forward with such interference.  It all papers and documents and perform any act which may be neention for Protection of Industrial Property or similar agreements. In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee.  In all affirmative acts which may be necessary to obtain, maintain patent to the Assignee of the U.S. Patent and Trademark Office dapplication(s) to the said Assignee, as Assignee of the entire intessigned, and that he has not executed, and will not execute, any against and his heirs, successors, assigns and legal representatives. The firm of OLIFF & BERRIDGE, PLC the power to insert on this associe in order to comply with the rules of the United States Patent and a undersigned on the date(s) opposite the indersigned name(s).  Inventor Signature	ts in connection with such may be declared concerning vention, and to cooperate with cessary in connection with or confirm by reissue or ce to issue any and all Letters trest, and covenants that he have ements in conflict herewith ignment any further d Trademark Office for (SEAL)  ITESIDE (SEAL)  (SEAL)  (SEAL)  (SEAL)  (SEAL)  (SEAL)  (SEAL)

PATENT REEL: 020508 FRAME: 0581

## **ASSIGNMENT**

(9) Inservations (10) Inservations (11) Inservations (12) Inservations (13) Altervations and (13) Eareissue applications and (13) Eareissue applications and (13) Eareissue applications and (13) Eareissue applications (14) Eareissue (15) Eareissue	ntification n as Title, Case nber, or Foreign lication Number ert Date of ning of elication ernative ntification for i applications ach undersigned agrees ations for the invention,	(9) (10) (herein the en invent continuextens) (11) (Attor for whon even (12) (13) filed to execut	In consideration of the undersigned of the undersig	Gate, Lond sthe Assign interest for dications for al, confirmate examinations FOR MEAS  135598 ed has (have	don SW1E 6A nee) and Assign the United Star patent includi ation, substitute on certificates SURING WAL	\$1.00) and other ees to assign, and T, Great Britain nee's heirs, succestes of America as ng any and all pree and reissue app that may be grant. THICKNESSI	good and valuable co d hereby does assign,	al representatives, §100, in the ional, divisional, tters Patent, known as
(9) Insert Identifications applications an applications an applications an application application or provious 4) Eart Edams or provious 4) Eart Eda	sert Name of signee sert Address of signee sert Address of signee signee sert Address of signee signee sert Date of signer ser	(4) to eac over to (9) (10) (herein the en invent continuextens) (11) (Attorn for whom ever (12) (13) filed to execute to eac over the encountry of the encount	In consideration of the undersigned of the undersig	Gate, Lond s the Assign interest for tications for al, confirma eexaminatic FOR MEAS  135598 ed has (have	don SW1E 6A mee) and Assign the United Star patent including ation, substitute on certificates SURING WAL  8 e) executed ar	(8)  \$1.00) and other ees to assign, and the ees to assign, and the ees to assign, and the ee's heirs, succestes of America as and and reissue appoint that may be grant. THICKNESSI	good and valuable of the defined in 35 U.S.C. ovisional, non-provisilication(s), and all Letted on the invention kets OF OBJECTS	onsideration paid, transfer and set  al representatives, §100, in the ional, divisional, tters Patent, known as
Ass (10) Inser (11) Inser Ident such Num Appl (12) Inser Signi Appl (13) Alter Ident filed  1) Ea reissue applications an 2) Ea any applications an 2) Ea any application an 2) Ea claims or provi 4) Ea reexamination 5) Ea reexamination claims of the L cull right to cound agrees that 6) Ea	ert Address of signee sert Address of signee ert to tification of as Title, Case of signee ert Date of signed agrees ert Date of signed agrees ach undersigned agrees ach undersigned agrees ach in sort to the invention,	to each over to (9) (10) (herein the en invent contin extens (11) (Attor for whon ever (12) (13) filed to execut	In consideration of the of the undersigned of the u	Gate, Lond s the Assign interest for tications for al, confirma eexamination FOR MEAS  135598 and has (have	don SW1E 6A nee) and Assign the United Star patent includi ation, substitute on certificates SURING WAL	\$1.00) and other ees to assign, and T, Great Britain nee's heirs, succestes of America as ng any and all pree and reissue app that may be grant. THICKNESSI	good and valuable of the defined in 35 U.S.C. ovisional, non-provisilication(s), and all Letted on the invention kets OF OBJECTS	onsideration paid, transfer and set  al representatives, §100, in the ional, divisional, tters Patent, known as
Ass (10) Inser Identicular Such Num Appl (12) Inser Signi Appl (13) Alter Identified  1) Ea reissue applications an 2) Ea reissue applications an 3) Ea reissue applications an 4) Ea reissue applications an 3) Ea reissue applications an 3) Ea reissue applications an 4) Ea reissue applications an 4) Ea reissue applications an 5) Ea reissue applications an 6) Ea reissue applications an 7) Ea reis	ert Address of signee sert Address of signee ert to tification of as Title, Case of signee ert Date of signed agrees ert Date of signed agrees ach undersigned agrees ach undersigned agrees ach in sort to the invention,	(9) (10) (herein the en invent continuextens) (11) (Attor for whon even (12) (13) filed to execut	Rolls-Royce plc  65 Buckingham  nafter designated as tire right, title and it tion, and in all applications, reissues and response and response to the second state of	Gate, Lond s the Assign interest for tications for al, confirma eexamination FOR MEAS  135598 and has (have	don SW1E 6A nee) and Assign the United Star patent including ation, substitute on certificates SURING WAL  8 e) executed ar	\$1.00) and other ees to assign, and T, Great Britain nee's heirs, succestes of America as ng any and all pree and reissue app that may be grant. THICKNESSI	good and valuable cod hereby does assign, assigns and legal defined in 35 U.S.C. ovisional, non-provisilication(s), and all Letted on the invention kees of OBJECTS	al representatives, §100, in the ional, divisional, tters Patent, known as
Ass (10) Inser (11) Inser Ident such Num Appl (12) Inser Signi Appl (13) Alter Ident filed  1) Ea reissue applications an 2) Ea any applications an 2) Ea any application he Assignee in 3) Ea claims or provi 4) Ea reteamination (5) Ea reteamination (6) Ea	ert Address of signee sert Address of signee ert to tification of as Title, Case of signee ert Date of signed agrees ert Date of signed agrees ach undersigned agrees ach undersigned agrees ach in sort to the invention,	(10) (herein the end invent continuextens) (11)  (Attor for whon even (12)  (13) filed to execute	65 Buckingham nafter designated as tire right, title and it tion, and in all appli- nuation, international sions, reissues and r  APPARATUS F  3575 Brck  They Docket No. Inich the undersignee and the herewith or  On  U.S. application  February	Gate, Lond s the Assign interest for tications for al, confirma eexamination FOR MEAS  135598 ed has (have	nee) and Assign the United Starpatent including the patent including the	nee's heirs, succestes of America as ng any and all pree and reissue app that may be gran L THICKNESSI	ssors, assigns and legal defined in 35 U.S.C. ovisional, non-provisi lication(s), and all Letted on the invention kess of objects	§100, in the ional, divisional, tters Patent, known as
(11) Inser Idents such Num Appl (12) Inser Signi Appl (13) Alter Idents filed  1) Eater such applications an 2) Eater applications an 2) Eater application and application in 3) Eater sor provides examination (1) Eater sor provides examination (2) Eater sor the Eater s	ert Address of signee ert mification as Title, Case of silication Number ert Date of silication ernative entification for applications ach undersigned agrees attions for the invention,	(10) (herein the end invent continuextens) (11)  (Attor for whon even (12)  (13) filed to execute	65 Buckingham nafter designated as tire right, title and it tion, and in all appli- nuation, international sions, reissues and r  APPARATUS F  3575 Brck  They Docket No. Inich the undersignee and the herewith or  On  U.S. application  February	Gate, Lond s the Assign interest for tications for al, confirma eexamination FOR MEAS  135598 ed has (have	nee) and Assign the United Starpatent including the patent including the	nee's heirs, succestes of America as ng any and all pree and reissue app that may be gran L THICKNESSI	ssors, assigns and legal defined in 35 U.S.C. ovisional, non-provisi lication(s), and all Letted on the invention kess of objects	§100, in the ional, divisional, tters Patent, trown as
Identicated in Such Num Appl  (12) Inser Signi Appl  (13) Alter Identified  1) Eat applications an 2) Eat applications and application the Assignee in 3) Eat aliams or provi 4) Eat eexamination 5) Eat eatents of the Unit right to cound agrees that 6) Ea	ntification n as Title, Case nber, or Foreign lication Number ert Date of ning of elication ernative ntification for i applications ach undersigned agrees ations for the invention,	the en invent continuextens (11)  (Attor for whon eve (12)  (13) filed to execute the end of the en	tire right, title and it tion, and in all application, internations sions, reissues and reactions, reissues and reactions.  APPARATUS F. 3575 Brck  The properties of the undersigned on the undersigned of	interest for to ications for al, confirma eexaminations for MEAS  135598  ed has (have been all Number 1 Number	the United Starpatent including patent including tion, substitute on certificates SURING WAL  8  e) executed are another including the patent including the	tes of America as ng any and all pre e and reissue app that may be gran L THICKNESSI	defined in 35 U.S.C. ovisional, non-provisi lication(s), and all Let ted on the invention kes OF OBJECTS	§100, in the ional, divisional, tters Patent, trown as
Identicate Such Num Appl  (12) Inser Signi Appl  (13) Alter Identified  1) Eat reissue applications and applications and applications and application the Assignee in 3) Eat claims or provi 4) Eat reexamination 5) Eat Patents of the Efull right to corand agrees that 6) Eat	ntification n as Title, Case nber, or Foreign lication Number ert Date of ning of elication ernative ntification for i applications ach undersigned agrees ations for the invention,	(Attor for wh on eve (12) (13) filed to execu	3575 Brck  rney Docket No. hich the undersigneen date herewith or on  U.S. application  February	135598 ed has (have	8 e) executed ar	application for	patent in the United	
Num Appl  (12) Inser Signi Appl  (13) Alter Ident filed  1) Ea reissue applications an 2) Ea any applications the Assignee in 3) Ea claims or provi 4) Ea reexamination 5) Ea Patents of the [full right to cor and agrees that 6) Ea	nber, or Foreign elication Number ert Date of hing of elication ernative hification for i applications ach undersigned agrees ations for the invention,	for whon ever	rney Docket No.  hich the undersigneen date herewith or  on  U.S. application  February	Serial Num	e) executed ar			
(12) Inser Signi Appl  (13) Alter Ident filed  1) Eareissue applications an 2) Eareapplications an 2) Eareapplication 4) Eareexamination 5) Eareapplication 5) Eareapplication 5) Eareapplication 5) Eareapplication 6) Eareapplication 5) Eareapplication 6) Eareapplication 6	ert Date of aing of olication Number sing of olication ernative entification for a pplications ach undersigned agrees ations for the invention,	for whon ever	on  U.S. application  February	Serial Num	e) executed ar			
Signi Appl  (13) Alter Ident filed  1) Ea reissue applications an 2) Ea applications an 3) Ea claims or provi 4) Ea reexamination 5) Ea Patents of the I full right to cor and agrees that 6) Ea	ning of plication ernative ntification for d applications ach undersigned agrees ations for the invention,	on ever (12) (13) filed to execut	onU.S. application	Serial Num	nber			
Signi Appl  (13) Alter Ident filed  1) Eareissue applications an 2) Eareissue applications an 3) Eareissue applications an 3) Eareissue applications and applications and applications and agrees that 6) Eareissue applications and agrees that 6) Eareissue applications and agrees that	ning of plication ernative ntification for d applications ach undersigned agrees ations for the invention,	(13) filed	U.S. application	Serial Num	nber			
ldent filed  1) Ea reissue applica applications an 2) Ea any application the Assignee in 3) Ea claims or provi 4) Ea reexamination 5) Ea Patents of the Util right to corand agrees that 6) Ea	ntification for i applications ach undersigned agrees ations for the invention,	filed to execu	February					· · · · · · · · · · · · · · · · · · ·
filed  1) Eareissue applications an 2) Eareissue applications an 2) Eareise in 3) Eareise in 3) Eareise in 4) Eareise in 5) Eareise of the Unit right to conduct agrees that 6) Eareissue applications of the Unit right to conduct agrees that 6) Eareissue applications and agrees that	i applications  ach undersigned agrees ations for the invention,	to execu	,	7, 20	800			
1) Eareissue applica applications an 2) Eareissue applications an 3) Eareise in 3) Eareise in 4) Eareexamination 5) Eareise of the Unit of the County agrees that 6) Ea	ach undersigned agrees ations for the invention,	to execu	,	<del>/ 5 - ∠\</del>	<del>/U8</del>			
	ach undersigned agrees visions of the Internation ach undersigned agrees a grant of a valid Unite ach undersigned author. United States resulting onvey the entire interest ach undersigned hereby that may be necessary of the states are to the tarmay be necessary of the tarmation and tarmatical actions and the tarmatical actions and the tarmatical actions and the tarmatical actions and tarmatical actions are tarmatical actions and tarmatical actions and tarmatical actions are tarmatical actions at the tarmatical actions are tarmatical actions and tarmatical actions are tarmatical actions at the tarmatical actions are tarmatical actions at the tarmatical actions are tarmatical actions at the tarmatical actions at	to execunal Convito performed States and from sa herein a ding on grants to	ute all papers and ovention for Protects orm all affirmative s patent to the Assi I requests the Come id application(s) to assigned, and that h him and his heirs, the firm of OLIFF a	documents a ion of Industry which ignee. In issioner of the said A he has not e successors & BERRIDG	and perform a strial Property may be neces of the U.S. Pat assignee, as As executed, and a, assigns and GE, PLC the po	ny act which may or similar agree sary to obtain, ment and Trademassignee of the en will not execute, legal representationer to insert on	ments.  aintain or confirm by  rk Office to issue any  tire interest, and cove  any agreements in cove  ves.  this assignment any	y reissue or y and all Letters enants that he has onflict herewith, further
	this document.	ad bu 6b	o undonstaned on	the details	) annolta the	a understand n	ama(s)	
in wit Date	uness whereut, execute	ca by in	9	``	,	O WILLIAM HO	• •	(SEAL)
	1/1/08			r Signatur r Signatur			ON ORCHARD	(SEAL)
-	1103		<del> </del>	r Signatur r Signatur	e DEAN'S	S who te	T WHITESIDE	(SEAL)
_				r Signatur			(1 WINIBOLDE	
				r Signatur				
				_				<del></del> ` '
ate								
either, then it s	ssignment should prefe	e at leas	e signed before: (a)	a Notary P	Public if within the here:	n the U.S.A. (b)	a U.S. Consul if outs	side the U.S.A. If
Date 16	_		-57	Witness	/ /		to	

**RECORDED: 02/07/2008** 

PATENT REEL: 020508 FRAME: 0582