Mail Stop: Assignment Recordation Services Director of the U.S. Patent and Trademark Office P.O. Bost 1450  Attorney Docket No. 150796  Please record the attached document.  Total number of pages including cover abact, attachments, and document:  [1] Hiroshi MIYAMOTO [2] Hiroshi SAWADA [3] Yasatshi IWAZAKI [4] Tatsuya TSUJI [5] Toru KIDOKORO  B. Additional name(s) of conveying party(ics) attached?    Ves No   Name and address of receiving party.   Additional name(s) of conveying party(ics) attached?   Ves No   Additional name(s) of conveying party(ics) attached?   Additional name(s) of conveying party(ics) attached?   Ves No   Ad			<u> </u>
Please record the attached document.	Assignment Recordation Services Director of the U.S. Patent and Trademark Office P.O. Box 1450		NLY Patent and Trademark Office
Total number of pages including cover shoot, attachments, and document: 2  1. A. Name of conveying parties: [1] Hiroshi MIYAMOTO [2] Hiroshi MIYAMOTO [2] Hiroshi MIYAMOTO [3] Yasushi IWAZAKI [4] Tatsuya TSUJI [5] Toru KIDOKORO  B. Additional name(s) of conveying party(ies) attached?  □ Yes □ No  3. A. Nature of conveyance: □ Assignment □ Merger □ Security Agreement □ Change of Name □ Other □ B. Execution Date: [1] February 16, 2011 [2] February 16, 2011 [3] February 16, 2011 [4] February 23, 2011 [5] February 16, 2011 [5] February 16, 2011 [6] February 16, 2011 [7] February 16, 2011 [8] February 16, 2011 [9] February 16, 2011 [1] February 16, 2011 [1] February 16, 2011 [1] February 16, 2011 [1] February 16, 2011 [2] February 16, 2011 [3] February 16, 2011 [4] February 23, 2011 [5] February 16, 2011 [6] February 16, 2011 [7] February 16, 2011 [8] February 16, 2011 [9] February 16, 2011 [10] February 16, 2011 [11] February 16, 2011 [12] February 16, 2011 [13] February 16, 2011 [14] February 23, 2011 [5] February 16, 2011 [6] February 16, 2011 [7] February 16, 2011 [8] February 16, 2011 [9] February 16, 2011 [10] February 16, 2011 [11] February 16, 2011 [12] February 16, 2011 [13] February 16, 2011 [14] February 16, 2011 [15] February 16, 2011 [16] February 16, 2011 [17] February 16, 2011 [18] February 16, 2011 [19] February 16, 2011 [10] February 16, 2011 [10] February 16, 2011 [10] February 16, 2011 [11] February 16, 2011 [12] February 16, 2011 [13] February 16, 2011 [14] February 16, 2011 [15] February 16, 2011 [16] February 16, 2011 [17] February 16, 2011 [18] February 16, 2011 [19] February 16, 2011 [10] February 16, 2011 [10] February 16, 2011 [11] February 16, 2011 [12] February 16, 2011 [13] February 16, 2011 [14] February 16, 2011 [15] February 16, 2011 [16] February 16, 2011 [17] February 16, 2011 [18] February 16, 2011 [19] February 16, 2011 [19] February 16, 2011 [19] February 16, 2011 [10] February 16, 2011 [10] February 16, 2011 [10] February 16, 2011 [11] February 16, 2011 [12] February 16, 2011 [1			Attorney Docket No. 150796
[1] Hiroshi MİYAMOTO [2] Hiroshi SAWADA [3] Yasushi İWAZAKI [4] Tatsuya TSUJI [5] Toru KİDOKORO  B. Additional name(s) of conveying party(ics) attached?  □ Yes ☒ No  3. A. Nature of conveyance:  ☒ Assigument □ Merger □ Security Agreement □ Change of Name □ Other □  B. Execution Date: [1] February 16, 2011 [2] February 16, 2011 [3] February 16, 2011 [4] February 23, 2011 [5] February 16, 2011  4. A. Patent Application No. 13/257,842  B. Patent No.(s)  Additional numbers attached? □ Yes ☒ No  C. Title of Application:  INTER-CYLINDER AIR-FUEL RATIO IMBALANCE JUDGMENT DEVICE FOR MULTI-CYLINDER INTERNAL COMBUSTION ENGINE  Name: James A. Oliff  Address: OLIFF & BERRIDGE, PLC RO. BON 320859 Alexandria, VA. 22320-4859 Phone Number: 703-836-6400 Fax Number: 703-836-6400 Fax Number: 703-836-6400 Fax Number: 703-836-6787  Date: September 20, 2011  Date: September 20, 2011  Date: September 20, 2011  Date: September 20, 2011  Date: September 20, 2011  Date: September 20, 2011	·	et, attachments, and docume	nt: <u>2</u>
Assignment	[1] Hiroshi MIYAMOT [2] Hiroshi SAWADA [3] Yasushi IWAZAKI [4] Tatsuya TSUJI [5] Toru KIDOKORO B. Additional name(s) of conveying	g party(ies) attached?	TOYOTA JIDOSHA KABUSHIKI KAISHA 1, TOYOTA-CHO, TOYOTA-SHI, AICHI 471-8571 JAPAN  B. Additional name(s) & address(es) attached?
Additional numbers attached?	Assignment  Security Agreement  Other  B. Execution Date: [1] February  [2] February  [3] February  [4] February	Change of Name  7 16, 2011 7 14, 2011 7 16, 2011 7 23, 2011	
5. Name and address of party to whom correspondence concerning document should be mailed:  Name: James A. Oliff  Address: Oliff & Berridge, PLC P.O. Box 320850 Alexandria, VA 22320-4850 Phone Number: 703-836-6400 Fax Number: 703-836-2787   9. 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 original document.  Date: September 20, 2011  Date: September 20, 2011	C. Title of Application: INTE	Additional numbers attack	hed? Yes No  EL RATIO IMBALANCE JUDGMENT DEVICE FOR
9. 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 original document.  Date: September 20, 2011  James A) Outf, Registration No. 27,075	5. Name and address of party to whom concerning document should be mail Name: James A. Oliff  Address: OLIFF & BERRIDG P.O. Box 3208: Alexandria, VA 223 Phone Number: 703-8	correspondence ed: 	<ol> <li>Total number of applications and patents involved: 1</li> <li>Please charge Deposit Account No. 15-0461 the total fee (37 CFR 3.41) in the amount of \$40.00.</li> <li>Credit any overpayment or charge any underpayment to</li> </ol>
<u> </u>	9. Statement and signature. To the best of my knowledge and be original document.  James A. Ouff, Registration No. 27.	lief, the foregoing information	

REEL: 026957 FRAME: 0501

## ASSIGNMENT

(8-1)		(1)	Direchi MERLA COMO	45	<b></b>
(1-8)	T		Hiroshi MIYAMOTO	(5)	Toru KIDOKORO
	Insert Name(s)	(2)	Hiroshi SAWADA	(6)	
	of Inventor(s)	(3)	Yasushi IWAZAKI	(7)	
		(4)	Tatsuya TSUJI	(8)	
		paid t set ov	In consideration of to each of the undersigned, are to		SI.00) and other good and valuable considerations to assign, and hereby does assign, transfer and
(9)	Insert Name of Assignee	(9)	ТОУОТА JIDOSHA KA	ABUSHIKI KAISUA	
(10)	Insert Address of Assignee	(10)			
	·	inventi continu	after designated as the Assigner right, title and interest for on, and in all applications for lation, international configuration.	gnee) and Assignee's he r the United States of A or patent including any	irs, successors, assigns and legal representatives, merica as defined in 35 U.S.C. §100, in the and all provisional, non-provisional, divisional, issue application(s), and all Letters Patent, y be granted on the invention known as
(11)	Insert	(11)	NTER-CYLINDER AI MULTI-CYLINDER IN	R-FILE PATIO	MD AT ANOTHER TO
	Identification such as Title, Case		PCT/JP2009/065983	TEIGNAL COMB	USTION ENGINE
	Number, or Foreign Application Number	(Attorn	ey Docket No. 15079	6	
			**	(a) avecus (a)	)
(12)	Insert Date of	on even	date herewith or	e) executed an applica	tion for patent in the United States of America
	Signing of Application	(12) o	even date herewith		
	Alternative Identification for	(I3) U	S. application Serial Numb		
	filed applications	filed	September 20,	2011	
application 2 any applic	ns and patents as the Assig  Each undersigned agree ation or continuation or di	nee may de	em necessary. e all papers necessary in co	nnection with any inte	lication and any continuing, divisional or ate assignments in connection with such reference which may be declared concerning eon, for the invention, and to concerning
application  any applic the Assign 3; claims or p 4; reexaminat 5) Patents of ti full right to and agrees 6)	ns and patents as the Assig ) Each undersigned agree ation or continuation or div tee in every way possible in ) Each undersigned agree provisions of the Internation ) Each undersigned agree tion a grant of a valid Unite ) Each undersigned autho the United States resulting to convey the entire interest that this assignment is bind  Each undersigned beach	nee may de is to execut vision there obtaining is to execut nal Conven is to perform of States par rizes and re- from said a therein assi- ding on him	em necessary.  e all papers necessary in co of, or any patent or reissue evidence and going forward e all papers and documents tion for Protection of Indus n all affirmative acts which tent to the Assignee. equests the Commissioner of pplication(s) to the said As gned, and that he has not ex a and his heirs, successors.	onnection with any interpretation based there application based there application based there and perform any act wastrial Property or similar may be necessary to o of the U.S. Patent and Tassignee, as Assignee of eccuted, and will not exassigns and legal representations.	reference which may be declared concerning eon, for the invention, and to cooperate with e.  Thick may be necessary in connection with a greements.  Thick maintain or confirm by reissue or frademark Office to issue any and all Letters the entire interest, and coverants the ball.
any application  any applice the Assign 3; claims or p 4; reexaminat 5) Patents of t full right to and agrees 6) identification recordation	ns and patents as the Assig ) Each undersigned agree ation or continuation or div ee in every way possible in ) Each undersigned agree provisions of the Internation ) Each undersigned agree tion a grant of a valid Unite ) Each undersigned autho the United States resulting o convey the entire interest that this assignment is bind Each undersigned hereby on that may be necessary of of this document.	nee may de sto executivision there obtaining sto execut neal Conven sto to perform de States parizes and refrom said a herein assiding on him y grants the desirable	em necessary.  e all papers necessary in co of, or any patent or reissue evidence and going forward e all papers and documents tion for Protection of Indus n all affirmative acts which tent to the Assignee. Equests the Commissioner of pplication(s) to the said As- gned, and that he has not ex- and his heirs, successors, firm of OLIFF & BERRIDG in order to comply with the	onnection with any interpretation based them application based them application based them and perform any act with the distribution of the U.S. Patent and of the U.S. Patent and of the U.S. Patent and of the U.S. Patent and of the U.S. Patent and of the U.S. Patent and of the U.S. Patent and of the U.S. Patent and of the U.S. Patent and of the U.S. Patent and of the U.S. Patent and of the U.S. Patent and of the U.S. Patent and of the U.S. Patent and of the U.S. Patent and of the United States and the United States and the United States and the United States and the U.S. Patent and of the United States and the U.S. Patent and O.S.	are assignments in connection with such reference which may be declared concerning eon, for the invention, and to cooperate with e.  Thich may be necessary in connection with a agreements.  Thich maintain or confirm by reissue or crademark Office to issue any and all Letters the entire interest, and covenants that he has secute, any agreements in conflict herewith, sentatives.  Sert on this assignment any further ares Patent and Trademark Office for
application 2 any applic the Assign 3; claims or p 4) reexaminat 5) Patents of t full right to and agrees 6) identification recordation In	ns and patents as the Assig ) Each undersigned agree ation or continuation or divide in every way possible in ) Each undersigned agree provisions of the Internation ) Each undersigned agree tion a grant of a valid Unite ) Each undersigned author the United States resulting o convey the entire interest that this assignment is bind Each undersigned hereby on that may be necessary or of this document.	nee may de sto executivision there obtaining sto execut neal Conven sto to perform de States parizes and refrom said a herein assiding on him y grants the desirable	em necessary.  e all papers necessary in co of, or any patent or reissue evidence and going forward e all papers and documents tion for Protection of Indus n all affirmative acts which tent to the Assignee. Equests the Commissioner of pplication(s) to the said As gned, and that he has not ex a and his heirs, successors, firm of OLIFF & BERRIDG in order to comply with the indersigned on the date(s)	onnection with any interpretation based there application based there application based there and perform any act wastrial Property or similar may be necessary to our of the U.S. Patent and Tassignee, as Assignee of eccuted, and will not expansing a sample of the United State of the United State opposite the undersignees.	reference which may be declared concerning eon, for the invention, and to cooperate with e.  which may be necessary in connection with a agreements.  btain, maintain or confirm by reissue or crademark Office to issue any and all Letters the entire interest, and covenants that he has secute, any agreements in conflict herewith, sentatives.  sert on this assignment any further ates Patent and Trademark Office for the name(s).
application any applic the Assign 3; claims or p 4; reexaminat 5) Patents of t full right to and agrees 6) identification coordation In Date	ns and patents as the Assig ) Each undersigned agree ation or continuation or divide in every way possible in ) Each undersigned agree provisions of the Internation ) Each undersigned agree tion a grant of a valid Unite ) Each undersigned author the United States resulting o convey the entire interest that this assignment is bind Each undersigned hereby on that may be necessary or of this document.	nee may de s to execut vision there obtaining s to execut nal Conven s to performed States parizes and refrom said a therein assifting on him y grants the desirable	em necessary.  e all papers necessary in co of, or any patent or reissue evidence and going forward e all papers and documents tion for Protection of Indus in all affirmative acts which stent to the Assignee. Equests the Commissioner of pplication(s) to the said As gned, and that he has not ex a and his heirs, successors, if irm of OLIFF & BERRIDG in order to comply with the indersigned on the date(s)  Inventor Signature	onnection with any interpretation based them application based them dwith such interference and perform any act watrial Property or similar may be necessary to o of the U.S. Patent and Tasignee, as Assignee of the U.S. Patent and Tasignee, as Assignee of the U.S. Patent and Tasignee, as Assignee of the U.S. Patent and Tasignee, as Assignee of the U.S. Patent and Tasignee, as Assignee of the U.S. Patent and Tasignee of the United State of the United State opposite the undersignee.	reference which may be declared concerning eon, for the invention, and to cooperate with e.  thich may be necessary in connection with a agreements.  btain, maintain or confirm by reissue or frademark Office to issue any and all Letters the entire interest, and covenants that he has recute, any agreements in conflict herewith, sentatives.  sert on this assignment any further ares Patent and Trademark Office for need name(s).  Management (SEAL)
application 2 any applic the Assign 3 claims or p 4 reexaminat 5) Patents of r full right to and agrees identification recordation In Date	ns and patents as the Assig ) Each undersigned agree ation or continuation or div tee in every way possible in ) Each undersigned agree provisions of the Internation ) Each undersigned agree tion a grant of a valid Unite ) Each undersigned author the United States resulting to convey the entire interest that this assignment is bind Each undersigned hereby on that may be necessary of of this document.  witness whereof, execute	nee may de s to execut vision there obtaining s to execut nal Conven s to perfor d States parizes and refrom said a herein assiling on him y grants the desirable d by the un	em necessary.  e all papers necessary in co of, or any patent or reissue evidence and going forward e all papers and documents tion for Protection of Indus n all affirmative acts which tent to the Assignee. equests the Commissioner of pplication(s) to the said As gned, and that he has not ex a and his heirs, successors, firm of OLIFF & BERRIDG in order to comply with the indersigned on the date(s)  Inventor Signature Inventor Signature	onnection with any interpretation based there application based there application based there and perform any act wastrial Property or similar may be necessary to our of the U.S. Patent and Tassignee, as Assignee of eccuted, and will not expansing a sample of the United State of the United State opposite the undersignees of the United State opposite the undersignees of the United State opposite the undersignees of the United State opposite the undersignees of the United State opposite the undersignees of the United State opposite the undersignees of the United State opposite the undersignees of the United State opposite the undersignees of the United State opposite the undersignees of the United State opposite the undersignees of the United State opposite the United State opposite the United State opposite the United State opposite the United State opposite the United State opposite the United State opposite the United State opposite the United State opposite the United State opposite the United State opposite the United State opposite the United State opposite the United State opposite the United State opposite the United State opposite opposite the United State opposite opposite the United State opposite o	reference which may be declared concerning eon, for the invention, and to cooperate with e.  which may be necessary in connection with a agreements.  btain, maintain or confirm by reissue or trademark Office to issue any and all Letters the entire interest, and covenants that he has secute, any agreements in conflict herewith, sentatives.  sert on this assignment any further attes Patent and Trademark Office for the name(s).
application 2 any applic the Assign 3; claims or p 4; reexaminat 5) Patents of it full right to and agrees 6) identification crecordation In Date Date	ns and patents as the Assig ) Each undersigned agree ation or continuation or divide in every way possible in ) Each undersigned agree provisions of the Internation ) Each undersigned agree tion a grant of a valid Unite ) Each undersigned author the United States resulting o convey the entire interest that this assignment is bind Each undersigned hereby on that may be necessary of of this document.  witness whereof, execute  Feb / 2011  Reb. 14 2011	nee may de sto executivision there obtaining sto executinal Convents to performed States parizes and refrom said a therein assistered and the states on him or grants the desirable diby the un	em necessary.  e all papers necessary in co of, or any patent or reissue evidence and going forward e all papers and documents tion for Protection of Indus n all affirmative acts which tent to the Assignee. Equests the Commissioner of pplication(s) to the said As- grad, and that he has not ex- and his heirs, successors, firm of OLIFF & BERRIDG in order to comply with the indersigned on the date(s)  Inventor Signature Inventor Signature Inventor Signature	onnection with any interpretation based them application based them application based them and perform any act with the strict of the U.S. Patent and of the U.S	reference which may be declared concerning eon, for the invention, and to cooperate with e.  thich may be necessary in connection with a agreements.  btain, maintain or confirm by reissue or frademark Office to issue any and all Letters the entire interest, and covenants that he has recute, any agreements in conflict herewith, sentatives.  sert on this assignment any further ares Patent and Trademark Office for need name(s).  Management (SEAL)
application  any applic the Assign  3; claims or p  4; reexaminat  5) Patents of title right to and agrees identification  In  Date  Date  Date  Date	ns and patents as the Assig ) Each undersigned agree attion or continuation or divide in every way possible in ) Each undersigned agree provisions of the Internation ) Each undersigned agree provisions of the Internation ) Each undersigned agree attion a grant of a valid Unite ) Each undersigned author the Each undersigned author that this assignment is bind Each undersigned here to that this assignment is bind Each undersigned here on that may be necessary of this document.  witness whereof, execute	nee may de sto executivision there obtaining sto executinal Convents to performed States parizes and refrom said a therein assistered and the states on him or grants the desirable diby the un	em necessary.  e all papers necessary in co of, or any patent or reissue evidence and going forward e all papers and documents tion for Protection of Indus n all affirmative acts which tent to the Assignee. equests the Commissioner o pplication(s) to the said As gned, and that he has not ex a and his heirs, successors, firm of OLIFF & BERRIDG in order to comply with the indersigned on the date(s)  Inventor Signature Inventor Signature Inventor Signature Inventor Signature	onnection with any interpretation based there application based there application based there is and perform any act wastrial Property or similar may be necessary to one of the U.S. Patent and Tassignee, as Assignee of eccuted, and will not expansion and legal represes, PLC the power to introduce of the United State opposite the undersignal direction.	reference which may be declared concerning eon, for the invention, and to cooperate with e.  thich may be necessary in connection with a agreements.  btain, maintain or confirm by reissue or frademark Office to issue any and all Letters the entire interest, and covenants that he has recute, any agreements in conflict herewith, sentatives.  sert on this assignment any further ates Patent and Trademark Office for med name(s).  Magnitude (SEAL)  January (SEAL)
application 2 any application 3 claims or p 4 reexaminat 5) Patents of if full right to and agrees 6) identification coordation In Date	ns and patents as the Assig ) Each undersigned agree ation or continuation or divide in every way possible in ) Each undersigned agree provisions of the Internation ) Each undersigned agree tion a grant of a valid Unite ) Each undersigned author the United States resulting to convey the entire interest that this assignment is bind Each undersigned hereby on that may be necessary of of this document.  witness whereof, execute  Feb /b 2611  Feb /b 2011  Feb /b 2011	nee may de sto executivision there obtaining sto executinal Convents to performed States parizes and refrom said a therein assistered and the states on him or grants the desirable diby the un	em necessary.  e all papers necessary in co of, or any patent or reissue evidence and going forward e all papers and documents tion for Protection of Indus n all affirmative acts which tent to the Assignee. Equests the Commissioner of pplication(s) to the said As gned, and that he has not ex and his heirs, successors, firm of OLIFF & BERRIDG in order to comply with the indersigned on the date(s)  Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature	onnection with any interpretation based there application based there application based there is an application based there is an application based there is an application based there are the interpretation of the U.S. Patent and I signed, as Assigned of the U.S. Patent and I signed, and will not expand the interpretation of the United States	are assignments in connection with such reference which may be declared concerning eon, for the invention, and to cooperate with e. The connection with a series of the invention or confirm by reissue or the entire interest, and covenants that he has secute, any agreements in conflict herewith, sentatives.  Sent on this assignment any further are Patent and Trademark Office for the damae(s).  Management (SEAL)  Janapak (SEAL)  Janapak (SEAL)
application 2 any application 3 claims or p 4 reexaminat 5) Patents of r full right to and agrees 6) identification cecordation In Date Date Date Date Date Date	ns and patents as the Assig ) Each undersigned agree ation or continuation or dividee in every way possible in ) Each undersigned agree provisions of the Internation ) Each undersigned agree provisions of the Internation ) Each undersigned agree tion a grant of a valid Unite ) Each undersigned author the United States resulting to convey the entire interest that this assignment is bind that this assignment is bind that may be necessary or of this document.  witness whereof, execute    Fab	nee may de s to execut vision there obtaining s to execut nal Conven s to performed States parizes and refrom said a therein assifting on him of grants the desirable d by the unit of the said and the	em necessary.  e all papers necessary in co of, or any patent or reissue evidence and going forward e all papers and documents tion for Protection of Indus n all affirmative acts which stent to the Assignee. equests the Commissioner o pplication(s) to the said As gned, and that he has not ex a and his heirs, successors, firm of OLIFF & BERRIDG in order to comply with the adersigned on the date(s)  Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature	princetion with any interpretation based there application based there application based there and perform any act was trial Property or similar may be necessary to on the U.S. Patent and Transignee, as Assignee of secuted, and will not exactly assigns and legal representations of the United States of	are assignments in connection with such reference which may be declared concerning eon, for the invention, and to cooperate with e.  thich may be necessary in connection with a agreements. betain, maintain or confirm by reissue or frademark Office to issue any and all Letters the entire interest, and covenants that he has recute, any agreements in conflict herewith, sentatives.  sent on this assignment any further are Patent and Trademark Office for med name(s).  Magnitude (SEAL)  Januard (SEAL)  Januard (SEAL)
application 2 any application 3; claims or p 4) reexaminat 5) Patents of full right to and agrees 6) identification recordation In Date Date Date Date Date Date Date Date	ns and patents as the Assig ) Each undersigned agree ation or continuation or divide in every way possible in ) Each undersigned agree provisions of the Internation ) Each undersigned agree tion a grant of a valid Unite ) Each undersigned author the United States resulting ) convey the entire interest that this assignment is bind Each undersigned hereby on that may be necessary of of this document.  witness whereof, execute  Feb /b 2611  Feb /b 2011  Feb /b 2011  Feb /b 2011	nee may de s to execut vision there obtaining s to execut nal Conven sto performed States parizes and refrom said a therein assiding on him v grants the redesirable d by the unit of the said a said a therein assiding on the redesirable desirable desirable said a the said a t	em necessary.  e all papers necessary in co of, or any patent or reissue evidence and going forward e all papers and documents tion for Protection of Indus n all affirmative acts which tent to the Assignee. Equests the Commissioner of pplication(s) to the said As gned, and that he has not ex and his heirs, successors, firm of OLIFF & BERRIDG in order to comply with the indersigned on the date(s) Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature	onnection with any interpretation based there application based there application based there and perform any act watrial Property or similar may be necessary to our of the U.S. Patent and Tassignee, as Assignee of eccuted, and will not expand a sasigns and legal reprecessions and legal reprecessions of the United State opposite the undersignature of the United State of the United St	are assignments in connection with such reference which may be declared concerning eon, for the invention, and to cooperate with e.  thich may be necessary in connection with a agreements. The second of the entire interest, and covenants that he has recute, any agreements in conflict herewith, sentatives.  Sert on this assignment any further ares Patent and Trademark Office for the name(s).  Magnitude (SEAL)  SEAL)  SEAL)  (SEAL)  (SEAL)
application  any applic  the Assign  3;  claims or p  4)  reexaminat  5)  Patents of ti  full right to and agrees  6) identification  In  Date  Date  Date  Date  Date  Date  Date  Date  Date  Date  This	ns and patents as the Assig ) Each undersigned agree ation or continuation or divide in every way possible in ) Each undersigned agree provisions of the Internation ) Each undersigned agree tion a grant of a valid Unite ) Each undersigned author the United States resulting o convey the entire interest that this assignment is bind Each undersigned hereby on that may be necessary or of this document.  witness whereof, execute  Feb /b 2611  Feb /b 2011  Feb /b 2011  Feb /b 2011	nee may de s to execut vision there obtaining s to execut nal Conven s to perform ad States parizes and refrom said a therein assigning on him y grants the desirable d by the un	em necessary.  e all papers necessary in co of, or any patent or reissue evidence and going forward e all papers and documents tion for Protection of Indus n all affirmative acts which tent to the Assignee. equests the Commissioner of pplication(s) to the said As gned, and that he has not ex n and his heirs, successors, firm of OLIFF & BERRIDG in order to comply with the indersigned on the date(s)  Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature	onnection with any interpretation based there application based there application based there and perform any act with the substitution of the U.S. Patent and Tourisignee, as Assignee of assigns and legal representations of the United State	are assignments in connection with such reference which may be declared concerning eon, for the invention, and to cooperate with e. thich may be necessary in connection with a agreements. The properties of the entire interest, and covenants that he has recute, any agreements in conflict herewith, sentatives.  Sert on this assignment any further ares Patent and Trademark Office for the name(s).  Magnifecture (SEAL)  Januarda (SEAL)  Januarda (SEAL)  (SEAL)  (SEAL)  (SEAL)
application  any application  any applic the Assign  3; claims or p  4) reexaminat  5) Patents of full right to and agrees identification  In Date  Date	ns and patents as the Assig ) Each undersigned agree ation or continuation or divide in every way possible in ) Each undersigned agree provisions of the Internation ) Each undersigned agree provisions of the Internation ) Each undersigned agree tion a grant of a valid Unite ) Each undersigned author the United States resulting to convey the entire interest that this assignment is binc  Each undersigned hereboon that may be necessary of this document.  witness whereof, execute  Feb /b 2611  Feb 16 2011  Feb 16 2011  Feb 16 2011  Feb 16 2011  Feb 23 2011  Feb 16 3011  Feb	nee may de s to execut vision there obtaining s to execut nal Conven s to perform ad States parizes and refrom said a therein assigning on him y grants the desirable d by the un	em necessary.  e all papers necessary in co of, or any patent or reissue evidence and going forward e all papers and documents tion for Protection of Indus n all affirmative acts which tent to the Assignee. equests the Commissioner o pplication(s) to the said As gned, and that he has not ex a and his heirs, successors, firm of OLIFF & BERRIDG in order to comply with the adersigned on the date(s)  Inventor Signature	princetion with any interpretation based there application based there application based there and perform any act waterial Property or similar may be necessary to on the U.S. Patent and Tassignee, as Assignee of secuted, and will not exassigns and legal represe, PLC the power to in rules of the United State opposite the undersignature of the United State of the U	are assignments in connection with such reference which may be declared concerning eon, for the invention, and to cooperate with e.  thich may be necessary in connection with a agreements. btain, maintain or confirm by reissue or frademark Office to issue any and all Letters the entire interest, and covenants that he has recute, any agreements in conflict herewith, sentatives.  sert on this assignment any further ares Patent and Trademark Office for med name(s).  Mysikotta (SEAL)  Jawa La (SEAL)  "Takin (SEAL)  (SEAL)
application  2 any applice the Assign 3; claims or p 4; reexaminat 5) Patents of fill right to and agrees 6) identification recordation  In Date Date Date Date Date Date Date Date	ns and patents as the Assig ) Each undersigned agree ation or continuation or divide in every way possible in ) Each undersigned agree provisions of the Internation ) Each undersigned agree tion a grant of a valid Unite ) Each undersigned author the United States resulting o convey the entire interest that this assignment is bind Each undersigned hereby on that may be necessary or of this document.  witness whereof, execute  Feb /b 2611  Feb /b 2011  Feb /b 2011  Feb /b 2011	nee may de s to execut vision there obtaining s to execut nal Conven s to perform ad States parizes and refrom said a therein assigning on him y grants the desirable d by the un	em necessary.  e all papers necessary in co of, or any patent or reissue evidence and going forward e all papers and documents tion for Protection of Indus n all affirmative acts which tent to the Assignee. equests the Commissioner of pplication(s) to the said As gned, and that he has not ex n and his heirs, successors, firm of OLIFF & BERRIDG in order to comply with the indersigned on the date(s)  Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature Inventor Signature	princetion with any interpretation based there application based there application based there and perform any act waterial Property or similar may be necessary to on the U.S. Patent and Tassignee, as Assignee of secuted, and will not exassigns and legal represe, PLC the power to in rules of the United State opposite the undersignature of the United State of the U	are assignments in connection with such reference which may be declared concerning eon, for the invention, and to cooperate with e. thich may be necessary in connection with a agreements. The properties of the entire interest, and covenants that he has recute, any agreements in conflict herewith, sentatives.  Sert on this assignment any further ares Patent and Trademark Office for the name(s).  Magnifecture (SEAL)  Januarda (SEAL)  Januarda (SEAL)  (SEAL)  (SEAL)  (SEAL)

RECORDED: 09/20/2011

**REEL: 026957 FRAME: 0502**