U.S. PTO 12/292822 11/26/2008 12-08-2008

To the Director of the U.S. Patent and Trademark Office:

U.S. Department of Commerce **Patent and Trademark Office**

Customer No.: 58,982

Attorney Docket No. 08350.8473-000

Mail Stop Assignment Recordation Servi

Name of conveying parties: Martin L. Willi						Name and address of receiving party:						
2. Scott B. Fiveland 3. David T. Montgomery 4. Weidong Gong						Name:		Cate	rpillar Inc	;.		
Addit	ional nam	e(s) c	of conveyi	ng parties	attach	ed? ☐ Yes ☒ No	Internal		<u> </u>			
3.	3. Nature of conveyance:							Street Address: 100 N.E. Adams Street			eet	
☒	Assignm	nent			Mer	ger	City:	P	eoria	<u> </u>		
	Security	Agre	ement		Cha	inge of Name	State:		IL		Zip Code:	61629-9510
	Joint Research Agreement			1	ernment Interest ignment	Additional name(s		s) & Addr	ess(es) attacl	ned?		
	Executive Order 9494, Confirmatory License			Oth		☐ Yes No						
Execu	ution Date): 	2	. 11/26/20 2. 11/26/20 3. 11/26/20 4. 11/26/20	800 800							
4.						er(s): If this document is b /26/2008, (3) 11/26/2008,				th a new	application, t	he execution da
Α.						B.	B. Patent Number(s):					
				Ac	dition	al numbers attached?	☐ Yes		ţ	⊠ No		
5.				party to w		orrespondence d:	Total nu	ımb	er of a	pplication	ns and patent	s involved: One
Name			Keefe				6. Total fee (37 CFR 1.21(h) and 3.41): \$40					
Intern				EGAN, HENDERSON, FARABOW, GARRETT INNER, L.L.P.				Enclosed (Please charge deficiency or cred overpayment to Deposit Account No. 06-09				
				k Avenue, N.W.			Authorized to be charged to deposit acco					
City:		Was	shington				1					
State:		D.C		Zip: 2000		20001-4413	7.	Deposit A		Account I	No.: <u>06-0916</u>	
8. To the	best of n		und signati		he for	egoing information is true	and correc	t an	id any	attached	copy is a true	e copy of the orig
	Signed:			Ani Mul						Novembe	r 26, 2008	
	Signed:		S	Stephen L. Keefe Reg. No. 61,1			100			Date		
			Tota	l number o	of page	es including cover sheet, a	attachment	s ar	nd doc	uments:	4	
/2006								$\overline{}$	 "		<u> </u>	

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PATENT REEL: 021945 FRAME: 0810 U.S. PTO 12/292822 11/26/2008

Customer No. 58,982 SOLE/JOINT INVENTION (Worldwide Rights) Attorney Docket No. 08350.8473-00000 Client Ref. No. 08-473

ASSIGNMENT

WHEREAS We, the below named inventors, [hereinafter referred to as Assignors], have made an invention entitled:

ENGINE CONTROL SYSTEM HAVING SPEED-BASED TIMING

for which We executed an application for United States Letters Patent concurrently herewith and

WHEREAS, Caterpillar Inc., a corporation of Delaware whose post office address is 100 N.E. Adams Street, Peoria, IL 61629-9510 (hereinafter referred to as Assignee), is desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the application for United States Letters Patent on this invention and the Letters Patent to be issued upon this application;

NOW THEREFORE, be it known that for and in consideration of the sum of One Dollar (\$1.00) in hand paid and other good and valuable consideration the receipt of which from Assignee is hereby acknowledged, We, as Assignors, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, our entire right, title, and interest in and to this invention, and this application, and all divisions, and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues thereof, and all rights to claim priority on the basis of this application, and all applications for Letters Patent which may hereafter be filed for this invention in any foreign country and all Letters Patent which may be granted on this invention in any foreign country, and all extensions, renewals, and reissues thereof; and We hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, We HEREBY covenant that We have the full right to convey the interest assigned by this Assignment, and We have not executed and will not execute any agreement in conflict with this Assignment;

AND, We HEREBY further covenant and agree that We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to us respecting this Invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

IN TESTIMONY WHEREOF, We have hereunto set our hands.

1. FULL NAME FIRST ASSIGNOR Martin L. Willi	ASSIGNOR'S SIGNATURE MAUTULIANIE	11/26/08
ADDRESS 2300 West Brooklyn Place, Dunlap, IL 6	61525	CITIZENSHIP U.S.A.

Page 1 of 3

PATENT REEL: 021945 FRAME: 0811

Customer No. 58,982 SOLE/JOINT INVENTION (Worldwide Rights) Attorney Docket No. 08350.8473-00000 Client Ref. No. 08-473

Peter D. Jensen	WITNESS, SIGNATURE!	11/26/2008
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Arnold Kim-	WITNESS SIGNATURES	11/26/06
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2. FULL NAME OF SECOND ASSIGNOR Scott B. Fiveland	ASSIGNOR'S SIGNATURE	DATE
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Highers name Kicher d T. Walsh	WITNESS SIGNATURE WALL	N/26/1008
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ADDRESS NAME DECHAK DUTTA ADDRESS ADDRIVE 3. FULL NAME OF THIRD ASSIGNOR, IF ANY David T. Montgomery	WITNESS SIGNATURE WITNESS SIGNATURE Depoch Dutta PEORIA, IL 61615 ASSIGNORIS SIGNATURE ASSIGNORIS SIGNATURE ASSIGNORIS SIGNATURE ASSIGNORIS SIGNATURE	DATE 1/26/2008 CIPIZENSHIP USA DATE 1/26/2008 CITIZENSHIP USA
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2 WITNESS NAME Arnold Kim WITNESS SIGNATURE	DATE 11/26/28
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4 FULL NAME OF FOURTH ASSIGNOR, IF ANY ASSIGNOR'S SIGNATURE Weidong Gong	DATE 11/26/08
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Page 3 of 3

PATENT REEL: 021945 FRAME: 0813