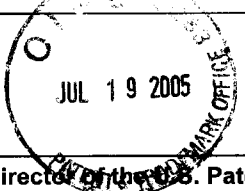


7-19-05



RECORDATION

07-22-2005



103046140

U.S. Department of Commerce
Patent and Trademark Office
Attorney Docket No. 08350.1649-04
Client Ref. No. 01-649.4
Attorney Customer Number: 22,852

Mail Stop Assignment Recordation Services

To the Director of the U.S. Patent and Trademark Office
Please record the attached original document.

1. Name of conveying parties: (a) James R. Weber (b) Scott A. Leman (c) Gerald N. Coleman (d) Kevin P. Duffy (e) Eric C. Fluga (f) Jonathan P. Kilkenny	2. Name and address of receiving party: Name: Caterpillar Inc.
---	---

Additional names of conveying parties attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Internal Address:
---	-------------------

3. Nature of conveyance:	Street Address: Intellectual Property Department 100 N.E. Adams Street
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<input checked="" type="checkbox"/> Assignment	<input type="checkbox"/> Merger	City: Peoria
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<input type="checkbox"/> Security Agreement	<input type="checkbox"/> Change of Name	State: Illinois	Zip Code: 61629-6490
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<input type="checkbox"/> Other:	Additional name(s) & Address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Execution Dates: (a) 6/21/05 (d) 4/22/05 (b) 4/19/05 (e) 6/21/05 (c) 4/19/05 (f) 6/21/05	

4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application:	
A. Patent Application Number(s): 10/992,074	B. Patent Number(s):
Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

5. Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and registrations involved:
---	---

Name: Christopher P. Isaac	7. Total fee (37 CFR 1.21(h) and 3.41): \$40 <input checked="" type="checkbox"/> Enclosed (Please charge deficiency to Deposit Account No. 06-0916) <input type="checkbox"/> Authorized to be charged to deposit account
Internal Address: FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.	
Street Address: 901 New York Avenue, N.W.	
City: Washington, D.C.	

State: Zip: 20001-4413	8. Deposit Account No.: 06-0916
------------------------	---------------------------------

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. F. Chad Copier Reg. No. 54,047	Signature: Date: July 19, 2005
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07/21/2005 ECOOPER 00000197 10992074
Total number of pages including cover sheet, attachments and documents: 13

01/2005 40.00 DP
01 FC18021

ASSIGNMENT

WHEREAS I, the below named inventor, [hereinafter referred to as Assignor], have made an invention entitled:

COMBUSTION ENGINE INCLUDING CAM PHASE-SHIFTING

for which I executed an application for United States Letters Patent concurrently herewith or filed an application for United States Letters Patent on November 19, 2004, (Serial No. 10/992,074); and

WHEREAS, **Caterpillar Inc.**, a corporation of **Delaware** whose post office address is **Intellectual Property Department, 100 N.E. Adams Street, Peoria, IL 61629-6490** (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, I, as Assignor, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, my entire right, title, and interest in and to this invention, provisional application Serial No. _____, filed _____ (if any), 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 the above provisional application (if any), as well as 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 I 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, I HEREBY covenant that I have the full right to convey the interest assigned by this Assignment, and I/We have not executed and will not execute any agreement in conflict with this Assignment;

AND, I HEREBY further covenant and agree that I/We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to me 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, I have hereunto set my hands.

1. FULL NAME OF SOLE OR FIRST ASSIGNOR James R. Weber	ASSIGNOR'S SIGNATURE <i>James R. Weber</i>	DATE 6/21/05
ADDRESS 532 St. Rt. 26, Lacon, IL 61540-8914		CITIZENSHIP USA U.S.A.

Listing of Inventors Continued on Page 2 hereof ☒ Yes ☐ No

1. WITNESS NAME <i>Jonathan Kilkenny</i>	WITNESS SIGNATURE <i>[Signature]</i>	DATE <i>6/21/2005</i>
ADDRESS <i>6623 N Greenmont Peoria IL 61614</i>		CITIZENSHIP <i>USA</i>

2. WITNESS NAME <i>Eric C Fluga</i>	WITNESS SIGNATURE <i>[Signature]</i>	DATE <i>21 Jun 2005</i>
ADDRESS <i>407 S. French Dr Dunlap IL 61525</i>		CITIZENSHIP <i>USA</i>

2. FULL NAME OF SECOND ASSIGNOR <i>Scott A. Leman</i>	ASSIGNOR'S SIGNATURE	DATE
ADDRESS <i>730 State Route 117, Eureka, IL 61530-9683</i>		CITIZENSHIP <i>USA</i>

1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

3. FULL NAME OF SECOND ASSIGNOR <i>Gerald N. Coleman</i>	ASSIGNOR'S SIGNATURE	DATE
ADDRESS <i>2 Millies Lane, Bulwick, Corby NN17 3EA United Kingdom</i>		CITIZENSHIP <i>USA</i>

ASSIGNMENT

WHEREAS I, the below named inventor, [hereinafter referred to as Assignor], have made an invention entitled:

COMBUSTION ENGINE INCLUDING CAM PHASE-SHIFTING

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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, I, as Assignor, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, my entire right, title, and interest in and to this invention, provisional application Serial No. _____, filed _____ (if any), 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 the above provisional application (if any), as well as 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 I 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, I HEREBY covenant that I have the full right to convey the interest assigned by this Assignment, and I/We have not executed and will not execute any agreement in conflict with this Assignment;

AND, I HEREBY further covenant and agree that I/We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to me 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, I have hereunto set my hands.

1. FULL NAME OF SOLE OR FIRST ASSIGNOR James R. Weber	ASSIGNOR'S SIGNATURE	DATE
ADDRESS 532 St. Rt. 26, Lacon, IL 61540-8914		CITIZENSHIP USA

Listing of Inventors Continued on Page 2 hereof ☒ Yes ☐ No

1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

2. FULL NAME OF SECOND ASSIGNOR Scott A. Leman	ASSIGNOR'S SIGNATURE <i>Scott A. Leman</i>	DATE 4-19-05
ADDRESS 730 State Route 117, Eureka, IL 61530-9683		CITIZENSHIP USA

1. WITNESS NAME EDWIN H. LANGEWISCH	WITNESS SIGNATURE <i>Edwin H. Langewisch</i>	DATE 19 APRIL 2005
ADDRESS 1428 W. GRANDRIDGE CT. DUNLAP, IL 61525		CITIZENSHIP USA

2. WITNESS NAME EDWARD R GILLIS	WITNESS SIGNATURE <i>Edward R Gillis</i>	DATE 19 APRIL 2005
ADDRESS 728 S. PRAIRIEVIEW DR DUNLAP, IL 61525		CITIZENSHIP USA

3. FULL NAME OF SECOND ASSIGNOR Gerald N. Coleman	ASSIGNOR'S SIGNATURE	DATE
ADDRESS 2 Millies Lane, Bulwick, Corby NN17 3EA United Kingdom		CITIZENSHIP USA

1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

4. FULL NAME OF SECOND ASSIGNOR Kevin P. Duffy	ASSIGNOR'S SIGNATURE <i>Kevin P. Duffy</i>	DATE April 22, 2005
ADDRESS 1575 Sweetwater Road, Metamora IL 61548		CITIZENSHIP USA

1. WITNESS NAME <i>ANTHONY KODMAN</i>	WITNESS SIGNATURE <i>A Kodman</i>	DATE 4/22/2005
ADDRESS <i>13707 WILD SPRUCE CT, CHILLICOTHE IL 61523</i>		CITIZENSHIP USA

2. WITNESS NAME <i>David Schuh</i>	WITNESS SIGNATURE <i>David Schuh</i>	DATE April 22 2005
ADDRESS <i>1913 W Casecreek</i>		CITIZENSHIP USA
<i>Peoria, IL 61615</i>		

5. FULL NAME OF SECOND ASSIGNOR Eric C. Fluga	ASSIGNOR'S SIGNATURE	DATE
ADDRESS 407 S. French, Dunlap, IL 61525-9798		CITIZENSHIP USA

1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

6. FULL NAME OF SECOND ASSIGNOR Jonathan P. Kilkenny	ASSIGNOR'S SIGNATURE	DATE
ADDRESS 6623 N. Greenmont, Peoria, IL 61614-2435		CITIZENSHIP USA

1. WITNESS NAME	WITNESS SIGNATURE	DATE
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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, I, as Assignor, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, my entire right, title, and interest in and to this invention, provisional application Serial No. _____, filed _____ (if any), 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 the above provisional application (if any), as well as 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 I 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;

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ADDRESS 532 St. Rt. 26, Lacon, IL 61540-8914		CITIZENSHIP USA

Listing of Inventors Continued on Page 2 hereof ☒ Yes ☐ No


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ADDRESS		CITIZENSHIP

2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

3. FULL NAME OF SECOND ASSIGNOR Gerald N. Coleman	ASSIGNOR'S SIGNATURE 	DATE 19 Apr. 1 2005
ADDRESS 2 Millies Lane, Bulwick, Corby NN17 3EA United Kingdom		CITIZENSHIP USA

1. WITNESS NAME DANIEL WARNE	WITNESS SIGNATURE <i>Daniel Warne</i>	DATE 19 APRIL 2005
ADDRESS 2 WOLSELEY CLOSE, YAXLEY, PETERBOROUGH CAMBS PE7 3EU. UK.		CITIZENSHIP UK

2. WITNESS NAME STEPHEN BIRD	WITNESS SIGNATURE <i>Stephen Bird</i>	DATE 19 APRIL 2005
ADDRESS 16 NEW ROAD, LANGTOFT, PETERBOROUGH Lincs PE6 9LE		CITIZENSHIP UK

4. FULL NAME OF SECOND ASSIGNOR Kevin P. Duffy	ASSIGNOR'S SIGNATURE	DATE
ADDRESS 1575 Sweetwater Road, Metamora IL 61548		CITIZENSHIP USA

1. WITNESS NAME	WITNESS SIGNATURE	DATE
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5. FULL NAME OF SECOND ASSIGNOR Eric C. Fluga	ASSIGNOR'S SIGNATURE	DATE
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