

U.S. PTO  
12/081893  
04/23/2008

FORM PTO-1595  
1-31-92

05-02-2008

U.S. Department of Commerce  
Patent and Trademark Office  
Attorney Docket No. 08350.7813  
Attorney Customer Number: 58,98

To the Director of the U.S. Patent and  
Please record the attached original doc

103499992

Mail Stop Assignment Recordation Service

1. Name of conveying party: a) Mary Lou KESSE b) Chris L. WYNKOOP c) Zhiyong WEI d) Michael S. LUKICH e) Wade D. SCRIVNER f) Amit JAYACHANDRAN		2. Name and address of receiving party(ies): Name: Caterpillar Inc.	
Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Internal Address: Intellectual Property Department	
3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other:		Street Address: 100 N.E. Adams Street City: Peoria State: IL Zip Code: 61629-6490	
Execution Date: a) April 15, 2008 d) April 11, 2008 b) April 14, 2008 e) April 15, 2008 c) April 11, 2008 f) April 14, 2008		Additional name(s) & Address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
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) April 15, 2008; b) April 14, 2008; c) April 11, 2008; d) April 11, 2008; e) April 15, 2008; f) April 14, 2008 A. Patent Application Number(s): B. Patent Number(s): Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
4. Name and address of party to whom correspondence concerning document should be mailed: Name: Christopher P. Isaac 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		Total number of applications and registrations involved: 1 5. Total fee (37 CFR 3.41): \$40 <input checked="" type="checkbox"/> Enclosed (Please charge deficiency to deposit account) <input type="checkbox"/> Authorized to be charged to deposit account 6. Deposit Account No. 06-0916	

7. 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.

Ryan C. Stockett, Reg. No. 53,642

*Ryan C. Stockett*

April 23, 2008

Signature

Date

Total number of pages including cover sheet, attachments, and documents: 9

04 FL:8821

48.69 OP

PATENT  
REEL: 020895 FRAME: 0840

U.S. PTO  
12/081893  
04/23/2008

SOLE/JOINT INVENTION  
(Worldwide Rights)  
Attorney Docket No. 08350.7813  
Client Ref. No. 07-813

## ASSIGNMENT

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

### EXHAUST SYSTEM IMPLEMENTING FEED FORWARD AND FEEDBACK CONTROL

for which I executed an application for United States Letters Patent concurrently herewith or filed an application for United States Letters Patent on ( ) (Serial No. ); and

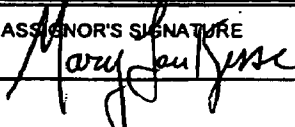
WHEREAS, **Caterpillar Inc.**, a corporation of **Delaware** whose post office address is **Intellectual Property Department, 100 N.E. Adams Street, Peoria, IL 61629-6490** (hereinafter referred to as Assignee), is desirous of securing the entire right, title, and interest in and to this invention in 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 , 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, 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;

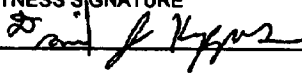
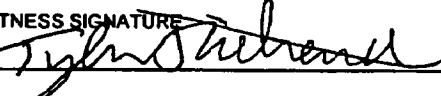
AND, I HEREBY covenant that I have the full right to convey the interest assigned by this Assignment, and I/We have not executed and will not execute any agreement in conflict with this Assignment;

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 Mary Lou KESSE	ASSIGNOR'S SIGNATURE 	DATE 15 APRIL 2008
ADDRESS 2426 Cobble Creek Court, Hanna City, IL 61536		CITIZENSHIP USA

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

1. WITNESS NAME Dave Kappanos	WITNESS SIGNATURE 	DATE 4/15/08
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2. FULL NAME OF SECOND ASSIGNOR Chris L. WYNKOOP	ASSIGNOR'S SIGNATURE	DATE
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1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP
2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

Listing of Inventors Continued on Page 3 hereof ☒ Yes ☐ No

3. FULL NAME OF THIRD ASSIGNOR <b>Zhiyong WEI</b>		ASSIGNOR'S SIGNATURE	DATE
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2. WITNESS NAME		WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP	

4. FULL NAME OF FOURTH ASSIGNOR <b>Michael S. LUKICH</b>		ASSIGNOR'S SIGNATURE <i>Michael S. Lukich</i>	DATE <b>4/11/08</b>
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1. WITNESS NAME <b>Lifeng Wang</b>		WITNESS SIGNATURE <i>Lifeng Wang</i>	DATE <b>04/11/08</b>
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Listing of Inventors Continued on Page 4 hereof ☒ Yes ☐ No

5. FULL NAME OF FIFTH ASSIGNOR Wade D. SCRIVNER		ASSIGNOR'S SIGNATURE <i>Wade D. Scrivner</i>	DATE 4/15/08
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1. WITNESS NAME <i>Steve Funke</i>		WITNESS SIGNATURE <i>Steven F. Funke</i>	DATE 4/15/08
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2. WITNESS NAME <i>David Pierpont</i>		WITNESS SIGNATURE <i>D. Pierpont</i>	DATE 15-APR-08
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6. FULL NAME OF SIXTH ASSIGNOR Amit JAYACHANDRAN		ASSIGNOR'S SIGNATURE	DATE
ADDRESS 5712 N. Cypress Drive, Apt. 3803, Peoria, IL 61615		CITIZENSHIP INDIA	
1. WITNESS NAME		WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP	
2. WITNESS NAME		WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP	

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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 , 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, 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.

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

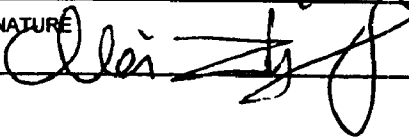
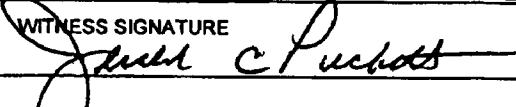

1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP
2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

2. FULL NAME OF SECOND ASSIGNOR Chris L. WYNKOOP	ASSIGNOR'S SIGNATURE <i>Chris L. Wynkoop</i>	DATE 4/14/08
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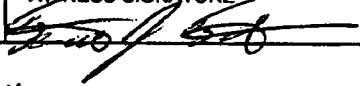
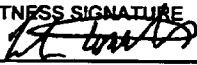
Listing of Inventors Continued on Page 3 hereof ☒ Yes ☐ No

3. FULL NAME OF THIRD ASSIGNOR Zhiyong WEI		ASSIGNOR'S SIGNATURE 	DATE 4/11/08
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2. WITNESS NAME CHRISTOPHER COPPLE		WITNESS SIGNATURE 	DATE 11 APR 08
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4. FULL NAME OF FOURTH ASSIGNOR Michael S. LUKICH		ASSIGNOR'S SIGNATURE	DATE
ADDRESS 20806 N. Sequoia CV, Chillicothe, IL 61523-9329		CITIZENSHIP USA	
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2. WITNESS NAME		WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP	
6. FULL NAME OF SIXTH ASSIGNOR Amit JAYACHANDRAN		ASSIGNOR'S SIGNATURE 	DATE 4/14/08
ADDRESS 5712 N. Cypress Drive, Apt. 3803, Peoria, IL 61615		CITIZENSHIP INDIA	
1. WITNESS NAME Timothy J. Felty		WITNESS SIGNATURE 	DATE 4/14/08
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2. WITNESS NAME TYLER TIPPERT		WITNESS SIGNATURE 	DATE 4/14/08
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