FORM PTO-1599 1-31-92	07-28-200		U.S. Department of Commerce Patent and Trademark Office Attorney Docket No. 08350.5706-00000 Attorney Customer Number: 58,982		
To the Director of the Please record the att	U.S. Patent ar	/ 	Mail Stop Assignment Recordation Services		
1. Name of conv William L. Ear Maarten Verk Aaron D. Stra James J. Dris	veying party(ies): sley, Jr. (April 24, 2006) iel (April 25, 2006) suser (July 21, 2006) scoll (April 24, 2006) el (April 24, 2006)		Name and address of receiving party(ies): Caterpillar Inc.		
. //	conveying party(ies) attached? ☐ Yes ☒ No	Internal	I Address: Peoria, IL		
3. Nature of con	veyance:	Street A	Address: 100 N.E. Adams Street		
	t	City:	Peoria		
Security Agreement	☐ Change of Name	State:	IL Zip Code: 61629-6490		
Other: Execution Dates:	William L. Easley, Jr. (April 24, 2006) Maarten Verkiel (April 25, 2006) Aaron D. Strauser (July 21, 2006) James J. Driscoll (April 24, 2006) Wade J. Robel (April 24, 2006)	Addition	nal name(s) & Address(es) attached? ☐ Yes		
4. Application not the application	umber(s) or patent number(s): If this document is	being filed t	together with a new application, the execution date of		
A. Patent Applic	ation Number(s):	B.	Patent Number(s):		
11/412,883 (f	iled April 28, 2006)				
	Additional numbers attached?	☐ Yes	⊠ No		
	Name and address of party to whom correspondence concerning document should be mailed:		Total number of applications and registrations involved:		
Name: Christopher	P. Isaac	7.	account)		
	NNEGAN, HENDERSON, FARABOW, GARRET DUNNER, L.L.P.		8		
	11 New York Avenue, N.W.		11412863		
City: Wash	ington, D.C.) 1141		
State:	Zip: 20001-4413	8.	Deposit Account No.: 06-091		
To the best of my know document.	To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a tracked copy of the original document.				
Jeremy T. Thi	Jeremy T. Thissell, Reg. #56,065 Signature Total number of pages including cover sheet, attachments and documents: 13				

ASSIGNMENT

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

EXHAUSI IKEAIMENI STSTEM	
for which I/We executed an application for United States Letters Patent concurrently herewith or filed an application United States Letters Patent on	for
WHEREAS, Caterpillar Inc., a corporation of Delaware whose post office address is 100 N.E. Adams Str Peoria, IL 61629-6490 (hereinafter referred to as Assignee), is desirous of securing the entire right, title, and interes and to this invention in all countries throughout the world, and in and to the application for United States Letters Pater this invention and the Letters Patent to be issued upon this application;	t in
NOW THEREFORE, be it known that for and in consideration of the sum of One Dollar (\$1.00) in hand paid other good and valuable consideration the receipt of which from Assignee is hereby acknowledged, I/We, as Assigne have sold, assigned, transferred, and set over and do hereby sell, assign, transfer, and set over unto the Assignee, lawful successors and assigns, my/our entire right, title, and interest in and to this invention, provisional application SNo, 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 pri 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 countral Letters Patent which may be granted on this invention in any foreign country, and all extensions, renewals, and reissues thereof; and I/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 all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;	or(s), its Serial fority ry and
AND, I/WE HEREBY covenant that I/We have the full right to convey the interest assigned by this Assignme and I/We have not executed and will not execute any agreement in conflict with this Assignment;	nt,
AND, I/WE HEREBY further covenant and agree that I/We will, without further consideration, communicate values and assigned assigned, its successors and assigns, any facts known to me/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 and any foreign country, it being understood that any expense incident to the execution of such papers shall be born the Assignee, its successors and assigns.	States
IN TESTIMONY WHEREOF, I/We have hereunto set our hands.	
FULL NAME OF SOLE OR FIRST ASSIGNOR William L. Easley, Jr. ASSIGNOR'S SIGNATURE William L. Easley, Jr. DATE 4/24/2006	
RESIDENCE Duniap, IL USA	
POST OFFICE ADDRESS 1700 W. Hickory Grove Rd., Apt. 7-204, Dunlap, IL 61525	

Listing of Assignors Continued on Page 2 hereof ■Yes □ No

1. WITNESS NAME	WITNESS SIGNATURE	DATE
Mo++how Robins	Matthew Bohm	4/24/2006
ADDRESS	I ranke want	CITIZENSHID
2 CIVI :	OII	1, 0
Matthen Bohn ADDRESS 3544 W Richwoods	Blud	45
0		
Peoria IL 61604		
70177		
2. WITNESS NAME	WITNESS SIGNATURE	DATE
a. a Hard	19-1316	4/24/2006
ADDRESS Na//A/A	12-13/00	CITIZENSHIP
ADDRESS		i i
605 Catherine		US
Ben Ballard ADDRESS 605 Catherine Washington IL 6		
Washington IL 6	1571	
CEULL MANE OF SECOND ASSIGNAD. IS ANY	ASSIGNOR'S SIGNATURE	LDATE
FULL NAME OF SECOND ASSIGNOR, IF ANY Maarten Verkiel	ASSIGNOR'S SIGNATURE	DATE
RESIDENCE		CITIZENSHIP
Metamora, IL		THE NETHERLANDS
POST OFFICE ADDRESS		·
308 Bittersweet Ave., Metamora, IL 61548		
1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP
2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

Listing of Assignors Continued on Page 3 hereof ■Yes □ No

FULL NAME OF THIRD ASSIGNOR, IF ANY Aaron D. Strauser	ASSIGNOR'S SIGNATURE	DATE
RESIDENCE Washington, IL		CITIZENSHIP USA
POST OFFICE ADDRESS 103 Esser Street, Washington, IL 61571		
1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS	· · · · · · · · · · · · · · · · · · ·	CITIZENSHIP
2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS	<u> </u>	CITIZENSHIP
FULL NAME OF FOURTH ASSIGNOR, IF ANY James J. Driscoll	ASSIGNOR'S SIGNATURE	DATE 4/24/2006
RESIDENCE		
Dunlap, IL		CITIZENSHIP USA
POST OFFICE ADDRESS 1700 W. Hickory Grove Rd., Apt. 1-209, Dunlap, IL 61525		
POST OFFICE ADDRESS 1700 W. Hickory Grove Rd., Apt. 1-209, Dunlap, IL 61525		USA
POST OFFICE ADDRESS 1700 W. Hickory Grove Rd., Apt. 1-209, Dunlap, IL 61525	WITNESS SIGNATURE Matthew Blim	DATE 4/24/2006
POST OFFICE ADDRESS 1700 W. Hickory Grove Rd., Apt. 1-209, Dunlap, IL 61525		USA DATE
POST OFFICE ADDRESS 1700 W. Hickory Grove Rd., Apt. 1-209, Dunlap, IL 61525 1. WITNESS NAME 1. WITNESS NAME 1. Grand 1. WITNESS NAME		DATE 4/24/2006 CITIZENSHIP
POST OFFICE ADDRESS 1700 W. Hickory Grove Rd., Apt. 1-209, Dunlap, IL 61525 1. WITNESS NAME ADDRESS 3544 W Richmads Rlu	Matthew Bhim	DATE 4/24/2006 CITIZENSHIP
POST OFFICE ADDRESS 1700 W. Hickory Grove Rd., Apt. 1-209, Dunlap, IL 61525 1. WITNESS NAME ADDRESS BY W Richwards Blu Peoria IL 61604 2. WITNESS NAME		DATE 4/24/2006 CITIZENSHIP 4/5 DATE 9/24/2006
POST OFFICE ADDRESS 1700 W. Hickory Grove Rd., Apt. 1-209, Dunlap, IL 61525 1. WITNESS NAME ADDRESS BYY W Richwards Blu Peoria IL 61604 2. WITNESS NAME	Matthew Shim	DATE 9/24/2006 CITIZENSHIP 45 DATE

Listing of Assignors Continued on Page 4 hereof ■Yes □ No

FULL NAME OF FIFTH ASSIGNOR, IF ANY Wade J. Robel	ASSIGNOR'S SIGNATURE M. S. C.	DATE /24/2006
RESIDENCE Peoria, IL 61614		OTIZENSHIP/ USA
POST OFFICE ADDRESS 3603 N. Highridge Dr., Peoria, IL 61614		
1. WITNESS NAME	WITNESS SIGNATURE	DATE
Matthew Bohm	Mateleu Blim	4/24/2006
ADDRESS	011	CITIZENSHIP
3544 W Richwoods	Blud	45
Pecric Il 61604		
2. WITNESS NAME	I WITHEST COMATHEE	L DATE
Att Julie M. Faas	WITNESS SIGNATURE	DATE 4/24/2006
ADDRESS		CITIZENSHIP
1600 W Blue Sage	Dr. #3201	USA
Peoria 12 61618		

Listing of Inventors Continued on Page 5 hereof ☐ Yes ■ No

FULL NAME OF FIFTH ASSIGNOR, IF ANY

ASSIGNMENT

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

EXHAUST TREATMENT SYSTEM

for which I/We executed an application for United S United States Letters Patent on	tates Letters Patent concurrently 2005 (Serial No.	herewith or filed an application for); and
WHEREAS, Caterpillar Inc., a corporation Peoria, IL 61629-6490 (hereinafter referred to as A and to this invention in all countries throughout the this invention and the Letters Patent to be issued upon the countries of the cou	ssignee), is desirous of securing tworld, and in and to the applicatio	the entire right, title, and interest in
NOW THEREFORE, be it known that for an other good and valuable consideration the receipt of have sold, assigned, transferred, and set over, and lawful successors and assigns, my/our entire right, No, filed (if any), and this Letters Patent of the United States which may be gon the basis of the above provisional application (if application, and all applications for Letters Patent wall Letters Patent which may be granted on this inversessues thereof; and I/We hereby authorize and restates and any official of any foreign country whose all Letters Patent for this invention to Assignee, its exassignment;	of which from Assignee is hereby a do hereby sell, assign, transfer, a title, and interest in and to this inv s application, and all divisions, and ranted thereon, and all reissues the any), as well as all rights to claim which may hereafter be filed for this ention in any foreign country, and quest the Commissioner of Patents eduty it is to issue patents on app	acknowledged, I/We, as Assignor(s), and set over unto the Assignee, its rention, provisional application Serial d continuations thereof, and all nereof, and all rights to claim priority priority on the basis of this invention in any foreign country and all extensions, renewals, and its and Trademarks of the United dications as described above, to issue
AND, I/WE HEREBY covenant that I/We had and I/We have not executed and will not execute a		
AND, I/WE HEREBY further covenant and Assignee, its successors and assigns, any facts kn proceeding, sign all lawful papers when called upon necessary or desirable to perfect the title to this invidivisional, continuation, and reissue applications, massignee, its successors and assigns, to obtain and any foreign country, it being understood that at the Assignee, its successors and assigns.	own to me/us respecting this invertion to do so, execute and deliver any ention in said Assignee, its successake all rightful oaths and generall denforce proper patent protection	ntion, and testify in any legal y and all papers that may be ssors or assigns, execute all ly do everything possible to aid I for this invention in the United States
IN TESTIMONY WHEREOF, I/We have he	reunto set our hands.	
FULL NAME OF SOLE OR FIRST ASSIGNOR William L. Easley, Jr.	ASSIGNOR'S SIGNATURE	DATE
RESIDENCE Dunlap, IL		CITIZENSHIP USA
POST OFFICE ADDRESS 1700 W. Hickory Grove Rd., Apt. 7-204, Dunlap, IL 61525		

Listing of Assignors Continued on Page 2 hereof $\ \blacksquare Yes \ \Box \ No$

1. WITNESS NAME	WITNESS SIGNATURE	DATE
THE SOLVAINE	THE COUNTY OF TH	Drift
ADDRESS		CITIZENSHIP
2. WITNESS NAME	WITNESS CIONATURE	
2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP
		<u> </u>
	, ,	1
FULL NAME OF SECOND ASSIGNOR, IF ANY	ASSIGNOR'S SIGNATIONE	DATE ,
Maarten Verkiel		4/25/06
DECIDENCE		
RESIDENCE Metamora, IL		CITIZENSHIP THE NETHERLANDS
		THE NEW MEN
POST OFFICE ADDRESS		
308 Bittersweet Ave., Metamora, IL 61548		
1. WITNESS NAME	WITNESS SIGNATURE	DATE
_		
Gleun B Cox ADDRESS	Glenn B. Cer	25 - Apr - OV CITIZENSHIP
ADDRESS		CITIZENSHIP
701 W. Deer Brook Dr.		USA
1-1 IV. Lee Droot W.		1 0 2 H
Peone IL 6/6/5		
		<u> </u>
2. WITNESS NAME STEVEN R M CCOY ADDRESS	WITNESS/SIGNATURE	I DATE
Cian D MCC	17 70 401C	i '' -
STEURIO R MICOY	Muk Willy	25-Apr -06
		CITIZENSHIP
Tab Westerle DI		USA
706 Westgate Rd		2371
, , , , , , , , , , , , , , , , , , , ,	(1,00)	
WASHINGTON IL	. (6/5//	

Listing of Assignors Continued on Page 3 hereof $\,\blacksquare \, {\rm Yes} \, \Box \, \, {\rm No} \,$

FULL NAME OF THIRD ASSIGNOR, IF ANY Aaron D. Strauser	ASSIGNOR'S SIGNATURE	DATE
RESIDENCE Washington, IL		CITIZENSHIP USA
POST OFFICE ADDRESS 103 Esser Street, Washington, IL 61571		
1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP
2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP
FULL NAME OF FOURTH ASSIGNOR, IF ANY James J. Driscoll	ASSIGNOR'S SIGNATURE	DATE
RESIDENCE Dunlap, IL		CITIZENSHIP USA
POST OFFICE ADDRESS 1700 W. Hickory Grove Rd., Apt. 1-209, Dunlap, IL 61525		
1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP
2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

Listing of Assignors Continued on Page 4 hereof ■Yes □ No

FULL NAME OF FIFTH ASSIGNOR, IF ANY Wade J. Robel	ASSIGNOR'S SIGNATURE	DATE
RESIDENCE Peoria, IL 61614	1	CITIZENSHIP USA
POST OFFICE ADDRESS 3603 N. Highridge Dr., Peoria, IL 61614		
1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP
2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

Listing of Inventors Continued on Page 5 hereof ☐ Yes ■ No

ASSIGNMENT

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

EXHAUST TREATMENT SYSTEM

for which I/We executed an applica	ation for United Sta	tes Letters Patent c	oncurrently here	with or filed an	application for
United States Letters Patent on	April 28, 2006	, 2005 (Serial No	11/412,883); and	• •

WHEREAS, Caterpillar Inc., a corporation of Delaware whose post office address is 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/We, as Assignor(s), 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/our entire right, title, and interest in and to this invention, provisional application Serial No. _________ (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 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/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, I/WE HEREBY covenant that I/We 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/WE HEREBY further covenant and agree that I/We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to me/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, I/We have hereunto set our hands.

FULL NAME OF SOLE OR FIRST ASSIGNOR William L. Easley, Jr.	ASSIGNOR'S SIGNATURE	DATE
RESIDENCE Dunlap, IL		CITIZENSHIP USA
POST OFFICE ADDRESS 1700 W. Hickory Grove Rd., Apt. 7-204, Dunlap, IL 61525		

Listing of Assignors Continued on Page 2 hereof ■Yes □ No

Page 1 of 1

PATENT

1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP
		·
2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP
		<u> </u>
	•	
FULL NAME OF SECOND ASSIGNOR, IF ANY Maarten Verkiel	ASSIGNOR'S SIGNATURE	DATE
Maanen verkiel		
RESIDENCE		CITIZENSHIP
Metamora, IL		THE NETHERLANDS
POST OFFICE ADDRESS 308 Bittersweet Ave., Metamora, IL 61548		
300 Bittersweet Ave., Metamota, IL 61346		
1. WITNESS NAME	WITNESS SIGNATURE	
	WITHESS SIGNATURE	DATE
ADDRESS		
1.001/1.000		CITIZENSHIP
2. WITNESS NAME	WITNESS SIGNATURE	
- THE CONTRACTOR OF THE CONTRA	ANTINESS SIGNATURE	DATE
ADDRESS		
ADDITEDS		CITIZENSHIP

Listing of Assignors Continued on Page 3 hereof ■Yes □ No

Page 2 of 2

PATENT

FULL NAME OF THIRD ASSIGNOR, IF ANY Aaron D. Strauser	ASSIGNOR'S SIGNATURE	DATE	
RESIDENCE Washington, IL		CITIZENSHIP USA	
POST OFFICE ADDRESS 103 Esser Street, Washington, IL 61571			
	4 /		
1. WITNESS NAME Nathan Bulmon ADDRESS	WITHERSTSIGNATURE SUMMON	DATE 21/July/07 CITIZENSHIP	
1417 Candlelight	Ct. Apt # 107	USA	
Peoria, IL 6	1614		
2. WITNESS NAME	WITNESS SIGNATURE 1	DATE	
Jack Maronay	Jash. Mary	21 20/4 06	
500 Fantasy LN.		USA	
Chillicothe IL 61	T23		
FULL NAME OF FOURTH ASSIGNOR, IF ANY	ASSIGNOR'S SIGNATURE	DATE	
James J. Driscoll			
RESIDENCE Dunlap, IL		CITIZENSHIP USA	
POST OFFICE ADDRESS 1700 W. Hickory Grove Rd., Apt. 1-209, Dunlap, IL 61525			
1. WITNESS NAME	WITNESS SIGNATURE	DATE	
ADDRESS		CITIZENSHIP	
	·		
2 Mattalice No.41			
2. WITNESS NAME	WITNESS SIGNATURE	DATE	
ADDRESS	***************************************	CITIZENSHIP	
Listing of Assignors Continued on Page 4 hereof ■Yes □ No			

Page 3 of 3

FULL NAME OF FIFTH ASSIGNOR, IF ANY Wade J. Robel	ASSIGNOR'S SIGNATURE	DATE ·	
RESIDENCE Peoria, IL 61614		CITIZENSHIP USA	
POST OFFICE ADDRESS 3603 N. Highridge Dr., Peoria, IL 61614			
1. WITNESS NAME	WITNESS SIGNATURE	DATE	
ADDRESS		CITIZENSHIP	
2. WITNESS NAME	WITNESS SIGNATURE	DATE	
ADDRESS		CITIZENSHIP	
·			

Listing of Inventors Continued on Page 5 hereof ☐ Yes ■ No

Page 4 of 4

RECORDED: 07/24/2006

PATENT