

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Jiao ZHANG	06/22/2011
Tonglin SHANG	06/22/2011
Peter SPRING	06/22/2011
Pengfei MA	06/22/2011
Randal N. PETERSON	06/23/2011
Rustu CESUR	06/22/2011
RECEIVING PARTY DATA	
Name:	Caterpillar Inc.
Street Address:	100 N.E. Adams Street
Internal Address:	Intellectual Property Department
City:	Peoria
State/Country:	ILLINOIS
Postal Code:	61629-9510
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	13171047
CORRESPONDENCE DATA	
Fax Number:	(202)408-4400
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Phone:	202-408-4000
Email:	ryan.stockett@finnegan.com
Correspondent Name:	CATERPILLAR/FINNEGAN, HENDERSON, L.L.P.
Address Line 1:	901 New York Avenue, NW
Address Line 4:	WASHINGTON, DISTRICT OF COLUMBIA 20001-4413
ATTORNEY DOCKET NUMBER:	08350.0305-00000

OP \$40.00 13171047

501579408

**PATENT
 REEL: 026516 FRAME: 0197**

NAME OF SUBMITTER:

Ryan C. Stockett

Total Attachments: 9

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FORM PTO-1595
1-31-92

RECORDATION FORM COVER SHEET
PATENTS ONLY

U.S. Department of Commerce
Patent and Trademark Office
Attorney Docket No. 08350.0305-00000
Attorney Customer Number: 58,982

To the Director of the U.S. Patent and Trademark Office:
Please record the attached original documents or copy thereof.

Mail Stop Assignment Recordation Services

1. Name of conveying party:
a) Jiao ZHANG
b) Tonglin SHANG
c) Peter SPRING
d) Pengfei MA
e) Randal N. PETERSON
f) Rustu CESUR

2. Name and address of receiving party(ies):

Name: Caterpillar Inc.

Additional name(s) of conveying party(ies) attached? Yes No

Internal Address: Intellectual Property Department

3. Nature of conveyance:

Street Address: 100 N.E. Adams Street

Assignment

Merger

City: Peoria

Security Agreement

Change of Name

State: IL Zip Code: 61629-9510

Other:

Additional name(s) & Address(es) attached?

Execution Date: a) June 22, 2011 d) June 22, 2011
b) June 22, 2011 e) June 23, 2011
c) June 22, 2011 f) June 22, 2011

Yes 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) June 22, 2011; b) June 22, 2011; c) June 22, 2011; d) June 22, 2011; e) June 23, 2011; f) June 22, 2011

A. Patent Application Number(s):

B. Patent Number(s):

Additional numbers attached?

Yes No

4. Name and address of party to whom correspondence concerning document should be mailed:

Total number of applications and registrations involved: 1

Name: Christopher P. Isaac

5. Total fee (37 CFR 3.41): \$40
 Enclosed (Please charge deficiency to deposit account)
 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.

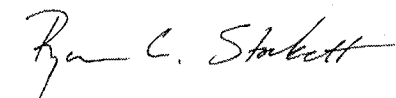
State: Zip: 20001

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



June 28, 2011

Signature

Date

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

ASSIGNMENT

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

HYDRAULIC CONTROL SYSTEM HAVING SWING MOTOR ENERGY RECOVERY

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 61629-9510** (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, 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 Jiao ZHANG	ASSIGNOR'S SIGNATURE <i>Jiao Zhang</i>	DATE <i>08/22/2011</i>
ADDRESS 1651 Pathway Drive, Naperville, IL 60565		CITIZENSHIP USA

SOLE/JOINT INVENTION
 (Worldwide Rights)
 Attorney Docket No. 08350.0305
 Client Ref. No. 10-0467

1. WITNESS NAME KALPESH PATEL	WITNESS SIGNATURE <i>K Patel</i>	DATE 06/22/2011
ADDRESS 340 DAFFODIL DR ROMEOVILLE, IL 60446		CITIZENSHIP USA
2. WITNESS NAME Michael R. Schwab	WITNESS SIGNATURE <i>Michael R. Schwab</i>	DATE 06/22/2011
ADDRESS Crest Hill, IL, 60443, 2300 Hess Dr		CITIZENSHIP USA

2. FULL NAME OF SECOND ASSIGNOR Tonglin SHANG	ASSIGNOR'S SIGNATURE <i>Tonglin Shang</i>	DATE 06/22/2011
ADDRESS 1483 Raven Drive, Bolingbrook, IL 60490		CITIZENSHIP CANADA

1. WITNESS NAME Michael R. Schwab	WITNESS SIGNATURE <i>Michael R. Schwab</i>	DATE 27 JUN 2011
ADDRESS 2300 Hess Dr. Crest Hill, IL, 60443		CITIZENSHIP USA

2. WITNESS NAME KALPESH PATEL	WITNESS SIGNATURE <i>K Patel</i>	DATE 06/27/2011
ADDRESS 340 DAFFODIL DR ROMEOVILLE, IL 60446		CITIZENSHIP U.S.A.

3. FULL NAME OF THIRD ASSIGNOR Peter SPRING		ASSIGNOR'S SIGNATURE <i>P. Spring</i>	DATE 06/22/2011
ADDRESS 139 Circle Drive W, Montgomery, IL 60538		CITIZENSHIP SWITZERLAND	
1. WITNESS NAME KALPESH PATEL		WITNESS SIGNATURE <i>[Signature]</i>	DATE 06/22/2011
ADDRESS 340 DAFFODIL DR ROMEOVILLE IL 60446		CITIZENSHIP U.S.A.	
2. WITNESS NAME VICKRAM MURUGESAN		WITNESS SIGNATURE <i>[Signature]</i>	DATE 06/22/2011
ADDRESS 311 ONEIDA ST #12W JOLIET IL 60435		CITIZENSHIP INDIA	
4. FULL NAME OF FOURTH ASSIGNOR Pengfei MA		ASSIGNOR'S SIGNATURE <i>[Signature]</i>	DATE 06/22/11
ADDRESS 1744 Cornell Court, Naperville, IL 60565		CITIZENSHIP CHINA	
1. WITNESS NAME SALIK SYED		WITNESS SIGNATURE <i>[Signature]</i>	DATE 6/22/2011
ADDRESS 2768 FORT SUMNER CT AURORA, IL 60503		CITIZENSHIP USA	
2. WITNESS NAME John Ferraz		WITNESS SIGNATURE <i>[Signature]</i>	DATE 6/22/11
ADDRESS 1778 Fieldstone Ct Romeoville, IL 60446		CITIZENSHIP USA	

5. FULL NAME OF FIFTH ASSIGNOR Randal N. PETERSON		ASSIGNOR'S SIGNATURE <i>Randal Peterson</i>	DATE 6/23/11
ADDRESS 7006 N. Draycott Place, Peoria, IL 61615		CITIZENSHIP USA	
1. WITNESS NAME <i>John Salomon</i>		WITNESS SIGNATURE <i>John Salomon</i>	DATE 6/23/2011
ADDRESS <i>819 W. Grand Oak Drive</i> <i>Peoria, IL 61615</i>		CITIZENSHIP <i>USA</i>	
2. WITNESS NAME <i>Robert Feller</i>		WITNESS SIGNATURE <i>Robert Feller</i>	DATE 6/23/11
ADDRESS <i>5420 S. Airport Rd</i> <i>Bartowville, IL 61607</i>		CITIZENSHIP <i>USA</i>	
6. FULL NAME OF SIXTH ASSIGNOR Rustu CESUR		ASSIGNOR'S SIGNATURE	DATE
ADDRESS 168 W. 20th Street, Lombard, IL 60148		CITIZENSHIP TURKEY	
1. WITNESS NAME		WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP	
2. WITNESS NAME		WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP	

ASSIGNMENT

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

HYDRAULIC CONTROL SYSTEM HAVING SWING MOTOR ENERGY RECOVERY

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 61629-9510** (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, 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 Jiao ZHANG	ASSIGNOR'S SIGNATURE	DATE
ADDRESS 1651 Pathway Drive, Naperville, IL 60565		CITIZENSHIP USA

SOLE/JOINT INVENTION
 (Worldwide Rights)
 Attorney Docket No. 08350.0305
 Client Ref. No. 10-0467

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

2. FULL NAME OF SECOND ASSIGNOR Tonglin SHANG	ASSIGNOR'S SIGNATURE	DATE
ADDRESS 1483 Raven Drive, Bolingbrook, IL 60490		CITIZENSHIP CANADA
1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP
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3. FULL NAME OF THIRD ASSIGNOR Peter SPRING		ASSIGNOR'S SIGNATURE	DATE
ADDRESS 139 Circle Drive W, Montgomery, IL 60538		CITIZENSHIP SWITZERLAND	
1. WITNESS NAME		WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP	
2. WITNESS NAME		WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP	

4. FULL NAME OF FOURTH ASSIGNOR Pengfei MA		ASSIGNOR'S SIGNATURE	DATE
ADDRESS 1744 Cornell Court, Naperville, IL 60565		CITIZENSHIP CHINA	
1. WITNESS NAME		WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP	
2. WITNESS NAME		WITNESS SIGNATURE	DATE
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 (Worldwide Rights)
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 Client Ref. No. 10-0467

5. FULL NAME OF FIFTH ASSIGNOR Randal N. PETERSON		ASSIGNOR'S SIGNATURE	DATE
ADDRESS 7006 N. Draycott Place, Peoria, IL 61615			CITIZENSHIP USA
1. WITNESS NAME		WITNESS SIGNATURE	DATE
ADDRESS			CITIZENSHIP
2. WITNESS NAME		WITNESS SIGNATURE	DATE
ADDRESS			CITIZENSHIP

6. FULL NAME OF SIXTH ASSIGNOR Rustu CESUR		ASSIGNOR'S SIGNATURE <i>Rustu Cesur</i>	DATE <i>June 22, 2011</i>
ADDRESS 168 W. 20th Street, Lombard, IL 60148			CITIZENSHIP TURKEY
1. WITNESS NAME <i>Martin TEINER</i>		WITNESS SIGNATURE <i>Martin Teiner</i>	DATE <i>June 22, 2011</i>
ADDRESS <i>Berggasse 21, 93233 Burglengenfeld, Germany</i>			CITIZENSHIP <i>Germany</i>
2. WITNESS NAME <i>Thorsten Parketny</i>		WITNESS SIGNATURE <i>Th. Parketny</i>	DATE <i>June 22, 2011</i>
ADDRESS <i>Falkenauer Str. 7a, 92421 Schwundorf, Ger.</i>			CITIZENSHIP <i>Germany</i>