501775779 01/04/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Michael L. Knussman	12/12/2011
Brad A. Edler	12/12/2011
Patrick Opdenbosch	12/12/2011

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:	13278895

CORRESPONDENCE DATA

Fax Number: (202)408-4420 Phone: 202-408-4000

Email: lauren.brown@finnegan.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

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: 08350.0366-00000

NAME OF SUBMITTER: Lauren M. Brown

Total Attachments: 7

PATENT REEL: 027478 FRAME: 0665 OP \$40.00 132788

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PATENT REEL: 027478 FRAME: 0666

RECORDATION FORM COVER S PATENTS ONLY				R SHEET U.S. Department of Commerce Patent and Trademark Office Attorney Docket No. 08350.0366-00000			
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			
Name of conveying party(ies): Michael L. Knussman Brad A. Edler Patrick Opdenbosch			Name and address of receiving party(ies): Name: Caterpillar Inc.				
Additiona	al name(s) of conveying	party(ies) attached? ☐ Yes ⊠ No	Internal	Address: Intelled	ctual Propert	ty Department	
3.	Nature of conveyance:		Street A	ddress: 100 N.	E. Adams S	treet	
⊠ As	ssignment	☐ Merger	City:	Peoria	and the second s		
☐ Se	ecurity Agreement	Change of Name	State:	IL	Zip Code:	61629-9510	
_	oint Research greement	Government Interest Assignment	Additional name(s) & Address(es) attached?			ned?	
E	xecutive Order 9494, confirmatory License	Other:		☐ Yes [⊠ No		
Executio		r 12, 2011; 2) December 12, 2011; r 12, 2011					
	Application number(s) of the application:	or patent number(s): If this document is be	ing filed to	ogether with a new a	application, t	he execution date of	
Α.	Patent Application Num	ber(s):	В.	Patent Number(s):			
	13/278,895						
		Additional numbers attached?	Yes	⊠ No			
Name and address of party to whom correspondence concerning document should be mailed:			6. Total number of applications and patents involved:				
Name:	Dominic P. Ciminello	(202) 408-4000	7.	Total fee (37 CFR	1.21(h) and	3.41): \$40	
Internal	Address: FINNEGAN & DUNNER	HENDERSON, FARABOW, GARRETT				deficiency or credit ecount 06-0916)	
Street A		ork Avenue, N.W.		Authorized to	be charged	to deposit account	
City:	Washington, D.	C.					
State:	Ž	Zip: 20001-4413	8.	Deposit Account N	lo.: <u>06-0916</u>		
9.	Statement and signatur	re.					
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.							
	Signed:	/Dominic P. Ciminello/			January 4,	2012	
	Olgilod.	Dominic P. Ciminello		-	D	Pate	
	Total	number of pages including cover sheet, a	ttachmen	ts and documents:	7		

6/2007

ASSIGNMENT

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

HYDRAULIC SYSTEM

for which I/We filed U.S. Patent Application No. 13/278,895 on October 21, 2011; 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, and in and to the patent application for this invention and any and all patents to be issued upon this application throughout the world;

NOW THEREFORE, be it known that for 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, and this application, and all divisions, and continuations thereof, and all patents which may be granted thereon, and all reissues thereof, as well as all rights to claim priority in any country or jurisdiction or patent office on the basis of this application, and all applications for patents which may hereafter be filed for this invention in any country or jurisdiction or patent office, and all extensions, renewals, and reissues thereof; and I/We hereby authorize and request any official of any country or jurisdiction or patent office whose duty it is to issue patents on applications as described above, to issue all patents 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 any country or jurisdiction or patent office, 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.

1. FULL NAME OF SOLE OR FIRST ASSIGNOR	ASSIGNOR'S SIGNATURE	DATE
Michael L. KNUSSMAN	Michael 2 Knussman	12/12/2011
ADDRESS 331 E. Eller Drive, East Peoria, IL 616	11	CITIZENSHIP USA

1. WITNESS NAME	WITNESS SIGNATURE	DATE
Jeremy TPeterson	Mary Kaller	2/2/2011
Jeremy TPeterson ADDRESS 1517 Agen Dr. Washing	64 IL 61571	CITIZENSHIP (SA
		<u> </u>
2. WITNESS NAME	WITNESS SIGNATURE	DATE
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Jeffrey L. Kuehn ADDRESS 426 Mackensie Pl. G.	ermantown Hills, 12 6/548	CITIZENSHIP USA
		1
2. FULL NAME OF SECOND ASSIGNOR	ASSIGNOR'S SIGNATURE	DATE
Brad A. Edler		
ADDRESS 6225 C Road, Waterloo, IL 62298		CITIZENSHIP USA
1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP
2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

3. FULL NAME OF THIRD ASSIGNOR	ASSIGNOR'S SIGNATURE	DATE
Patrick OPDENBOSCH	A. CRENTROSCH	12/12/2011
ADDRESS 2401 W. Alta Road, Apt. 2603, Peoria,	CITIZENSHIP COLOMBIA	
	Y	I
1. WITNESS NAME	WITNESS SIGNATURE	DATE
Joshua Dierkina	Ann Ann	12/12/2011
ADDRESS [110 N. Institute	N.	CITIZENSHIP U.S.A
Pearsa, IL 66606		
2. WITNESS NAME	WITNESS SIGNATURE	DATE
DAVED ALLT	Dant & ault	12/12/2011
ADDRESS SO7 W TEOFORD (CITIZENSHIP	
PEORA IL 616		

ASSIGNMENT

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

HYDRAULIC SYSTEM

for which I/We filed U.S. Patent Application No. 13/278,895 on October 21, 2011; 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, and in and to the patent application for this invention and any and all patents to be issued upon this application throughout the world;

NOW THEREFORE, be it known that for 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, and this application, and all divisions, and continuations thereof, and all patents which may be granted thereon, and all reissues thereof, as well as all rights to claim priority in any country or jurisdiction or patent office on the basis of this application, and all applications for patents which may hereafter be filed for this invention in any country or jurisdiction or patent office and all patents which may be granted on this invention in any country or jurisdiction or patent office, and all extensions, renewals, and reissues thereof; and I/We hereby authorize and request any official of any country or jurisdiction or patent office whose duty it is to issue patents on applications as described above, to issue all patents 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 any country or jurisdiction or patent office, 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 Michael L. KNUSSMAN	ASSIGNOR'S SIGNATURE	DATE
ADDRESS 331 E. Eller Drive, East Peoria, IL 61611		CITIZENSHIP USA

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

ADDRESS		CITIZENSHIP
2. FULL NAME OF SECOND ASSIGNOR	ASSIGNOR'S SIGNATURE	DATE
Brad A. Edler	But Alex	18/12/2011
ADDRESS		CITIZENSHIP USA
6225 C Road, Waterloo, IL 62298		
1. WITNESS NAME	WITNESS SIGNATURE	DATE
1. WITNESS NAME Karen Talbett-Wood ADDRESS 2931 Codifornia Ave.,	To TH- Wood	12/12/11
ADDRESS	1. (7110)	CITIZENSHIP
2931 California Ave.	1 St-Covis, MO 69118	USX)
2. WITNESS NAME	WITNESS SIGNATURE	DATE
JEFFREY KOTYK	Jeffrey Catyle	12/12/11
		CITIZENSHIP USA
12714 BELLEFONTAINE	RD., ST. LOUIS, MO 63138	U > W
		ALL COMPANY OF THE PROPERTY OF

3. FULL NAME OF THIRD ASSIGNOR	ASSIGNOR'S SIGNATURE	DATE
Patrick OPDENBOSCH		
ADDRESS 2401 W. Alta Road, Apt. 2603, Peoria,	CITIZENSHIP COLOMBIA	
		1
1. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP
2. WITNESS NAME	WITNESS SIGNATURE	DATE
ADDRESS		CITIZENSHIP

PATENT REEL: 027478 FRAME: 0673