

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT2999406

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
HOISAN KIM	07/28/2011
MARK F. SOMMARS	07/28/2011
XIANGDONG DING	07/28/2011
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	CATERPILLAR INC.
<b>Street Address:</b>	100 NE ADAMS STREET
<b>City:</b>	PEORIA
<b>State/Country:</b>	ILLINOIS
<b>Postal Code:</b>	61629
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14470216
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(202)861-1783
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	202-861-1500
<b>Email:</b>	patents@bakerlaw.com
<b>Correspondent Name:</b>	CATERPILLAR INC./BAKER HOSTETLER
<b>Address Line 1:</b>	WASHINGTON SQUARE, SUITE 1100,
<b>Address Line 2:</b>	1050 CONNECTICUT AVE, NW
<b>Address Line 4:</b>	WASHINGTON, D.C. 20036
<b>ATTORNEY DOCKET NUMBER:</b>	86703.26611
<b>NAME OF SUBMITTER:</b>	KA CHUN LEUNG
<b>SIGNATURE:</b>	/Ka Chun Leung/
<b>DATE SIGNED:</b>	08/27/2014
<b>Total Attachments: 3</b>	
source=8670326611_Assignment_filedAug272014#page1.tif	
source=8670326611_Assignment_filedAug272014#page2.tif	
source=8670326611_Assignment_filedAug272014#page3.tif	

## ASSIGNMENT

WHEREAS, Hoisan Kim, residing at Dunlap, Illinois, hereinafter referred to as ASSIGNOR has invented together with Xiangdong Ding and Mark F. Sommars a new and useful

### THREE-WAY NEEDLE CONTROL VALVE AND DUAL FUEL INJECTION SYSTEM USING SAME

for which ASSIGNOR is about to file an international application and/or make application for Letters Patent in the United States of America, such invention being described and identified by said application having an attached International Application Request and/or an attached Declaration and Power of Attorney executed by ASSIGNOR on 7/28/2011; and

WHEREAS, Caterpillar Inc., a Delaware corporation having a place of business at Peoria, State of Illinois, United States of America, hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to said invention and any Letters Patent granted thereon by the United States of America and any foreign country;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) and for other good and valuable consideration received by ASSIGNOR from ASSIGNEE, the receipt of which is hereby acknowledged by ASSIGNOR;

1. ASSIGNOR hereby sells, assigns, transfers and conveys unto ASSIGNEE the entire right, title and interest in and to said invention, any application therefor, and any Letters Patent granted thereon by the United States of America and any foreign country, including any continuing application, reissue or extension thereof, together with the right to file applications and obtain patents for said invention in any foreign country, and covenant that ASSIGNOR has the full right to do so.

2. At the request and expense of ASSIGNEE, ASSIGNOR agrees to communicate to ASSIGNEE any facts known respecting said invention, to execute all papers necessary to file any application on said invention necessary or desirable to aid ASSIGNEE in obtaining and enforcing proper protection for said invention in the United States of America and any foreign country.

3. ASSIGNOR hereby authorizes and requests the COMMISSIONER OF PATENTS AND TRADEMARKS to issue the United States Letters Patent on said invention, when granted, to Caterpillar Inc.

4. This assignment shall inure to the benefit of ASSIGNEE, its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, ASSIGNOR'S heirs and legal representatives.

IN TESTIMONY WHEREOF, ASSIGNOR has executed this instrument.

  
\_\_\_\_\_  
HOISAN KIM

7/28/2011  
\_\_\_\_\_  
Date

IN WITNESS OF the execution hereof by HOISAN KIM we have hereunto set our hands.

Mark Sommars 7/28/11  
\_\_\_\_\_  
Witness (1) Date  
Address: 114 Running Elk Ct.  
Sparland, IL 61565  
\_\_\_\_\_

Cory A. Brown 7/28/2011  
\_\_\_\_\_  
Witness (2) Date  
Address: 2401 W. Carriage Lane  
Peoria, IL 61614  
\_\_\_\_\_

ASSIGNMENT

WHEREAS, Mark F. Sommars, residing at Sparland, Illinois, hereinafter referred to as ASSIGNOR has invented together with Hoisan Kim and Xiangdong Ding a new and useful

THREE-WAY NEEDLE CONTROL VALVE AND DUAL FUEL INJECTION SYSTEM  
USING SAME

for which ASSIGNOR is about to file an international application and/or make application for Letters Patent in the United States of America, such invention being described and identified by said application having an attached International Application Request and/or an attached Declaration and Power of Attorney executed by ASSIGNOR on 7/28/11; and

WHEREAS, Caterpillar Inc., a Delaware corporation having a place of business at Peoria, State of Illinois, United States of America, hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to said invention and any Letters Patent granted thereon by the United States of America and any foreign country;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) and for other good and valuable consideration received by ASSIGNOR from ASSIGNEE, the receipt of which is hereby acknowledged by ASSIGNOR;

1. ASSIGNOR hereby sells, assigns, transfers and conveys unto ASSIGNEE the entire right, title and interest in and to said invention, any application therefor, and any Letters Patent granted thereon by the United States of America and any foreign country, including any continuing application, reissue or extension thereof, together with the right to file applications and obtain patents for said invention in any foreign country, and covenant that ASSIGNOR has the full right to do so.

2. At the request and expense of ASSIGNEE, ASSIGNOR agrees to communicate to ASSIGNEE any facts known respecting said invention, to execute all papers necessary to file any application on said invention necessary or desirable to aid ASSIGNEE in obtaining and enforcing proper protection for said invention in the United States of America and any foreign country.

3. ASSIGNOR hereby authorizes and requests the COMMISSIONER OF PATENTS AND TRADEMARKS to issue the United States Letters Patent on said invention, when granted, to Caterpillar Inc.

4. This assignment shall inure to the benefit of ASSIGNEE, its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, ASSIGNOR'S heirs and legal representatives.

IN TESTIMONY WHEREOF, ASSIGNOR has executed this instrument.

Mark F. Sommars  
MARK F. SOMMARS

7/28/11  
Date

IN WITNESS OF the execution hereof by MARK F. SOMMARS we have hereunto set our hands.

J. A. G.      07/28/2011  
Witness (1)      Date  
Address: 3936 W Creighton Ter  
Peoria, IL, 61615

Mayank Mittal      7/28/11  
Witness (2)      Date  
Address: 1506 W Covington Ct #2  
Peoria IL.

ASSIGNMENT

WHEREAS, Xiangdong Ding, residing at Peoria, Illinois, hereinafter referred to as ASSIGNOR has invented together with Mark F. Sommars and Hoisan Kim a new and useful

THREE-WAY NEEDLE CONTROL VALVE AND DUAL FUEL INJECTION SYSTEM  
USING SAME

for which ASSIGNOR is about to file an international application and/or make application for Letters Patent in the United States of America, such invention being described and identified by said application having an attached International Application Request and/or an attached Declaration and Power of Attorney executed by ASSIGNOR on 7/28/2011; and

WHEREAS, Caterpillar Inc., a Delaware corporation having a place of business at Peoria, State of Illinois, United States of America, hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to said invention and any Letters Patent granted thereon by the United States of America and any foreign country;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) and for other good and valuable consideration received by ASSIGNOR from ASSIGNEE, the receipt of which is hereby acknowledged by ASSIGNOR;

1. ASSIGNOR hereby sells, assigns, transfers and conveys unto ASSIGNEE the entire right, title and interest in and to said invention, any application therefor, and any Letters Patent granted thereon by the United States of America and any foreign country, including any continuing application, reissue or extension thereof, together with the right to file applications and obtain patents for said invention in any foreign country, and covenant that ASSIGNOR has the full right to do so.

2. At the request and expense of ASSIGNEE, ASSIGNOR agrees to communicate to ASSIGNEE any facts known respecting said invention, to execute all papers necessary to file any application on said invention necessary or desirable to aid ASSIGNEE in obtaining and enforcing proper protection for said invention in the United States of America and any foreign country.

3. ASSIGNOR hereby authorizes and requests the COMMISSIONER OF PATENTS AND TRADEMARKS to issue the United States Letters Patent on said invention, when granted, to Caterpillar Inc.

4. This assignment shall inure to the benefit of ASSIGNEE, its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, ASSIGNOR'S heirs and legal representatives.

IN TESTIMONY WHEREOF, ASSIGNOR has executed this instrument.

Xiangdong Ding  
XIANGDONG DING

Jul 28, 2011  
Date

IN WITNESS OF the execution hereof by XIANGDONG DING we have hereunto set our hands.

Mark Sommars 7/28/11  
Witness (1) Date  
Address: 114 Running Elk Ct.  
Spartanburg, IL 61565

Mayank Mittal 07/28/11  
Witness (2) Date  
Address: 1506 W. Covington Ct. #2  
Peoria IL 61603