

PATENT ASSIGNMENT

Electronic Version v1.1
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SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>Douglas A Rebinsky</td><td>07/27/2010</td></tr><tr><td>Orhan Altin</td><td>07/27/2010</td></tr><tr><td>Xiaodong Liu</td><td>07/27/2010</td></tr><tr><td>Yong Tian</td><td>07/27/2010</td></tr><tr><td>Jedidiah M. Hastings</td><td>07/30/2010</td></tr></tbody></table>		Name	Execution Date	Douglas A Rebinsky	07/27/2010	Orhan Altin	07/27/2010	Xiaodong Liu	07/27/2010	Yong Tian	07/27/2010	Jedidiah M. Hastings	07/30/2010
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RECEIVING PARTY DATA													
<table border="1"><tr><td>Name:</td><td>Caterpillar, Inc.</td></tr><tr><td>Street Address:</td><td>100 N.E. Adams St.</td></tr><tr><td>City:</td><td>Peoria</td></tr><tr><td>State/Country:</td><td>ILLINOIS</td></tr><tr><td>Postal Code:</td><td>61629</td></tr></table>		Name:	Caterpillar, Inc.	Street Address:	100 N.E. Adams St.	City:	Peoria	State/Country:	ILLINOIS	Postal Code:	61629		
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PROPERTY NUMBERS Total: 1													
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CORRESPONDENCE DATA													
Fax Number: (309)675-1236 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
Phone: 309-675-5140													
Email: US_Docket_Clerk@cat.com													
Correspondent Name: Caterpillar Inc. Intellectual Property D													
Address Line 1: AH 9510													
Address Line 2: 100 N.E. Adams Street													
Address Line 4: PEORIA, ILLINOIS 61629-9510													
ATTORNEY DOCKET NUMBER:	08-1153												
NAME OF SUBMITTER:	Christina L. Millikin												

CH \$40.00 12817936

501250843

PATENT
REEL: 024778 FRAME: 0648

Total Attachments: 5

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ASSIGNMENT

WHEREAS, JEDIDIAH M. HASTINGS, residing at Kansas City, Missouri, hereinafter referred to as ASSIGNOR has invented together with Douglas A. Rebinsky, Orhan Altin, Yong Tian and Xiaodong Liu a new and useful

ZINC OXIDE SULFUR SENSOR

for which ASSIGNOR has made application for Letters Patent in the United States of America, such invention being described and identified by said application identified as Application No. 12/817,936, filed June 17, 2010; 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.


JEDIDIAH M. HASTINGS

07/30/2010
Date

IN WITNESS OF the execution hereof by JEDIDIAH M. HASTINGS we have hereunto set our hands.

Witness (1)

Date

Address: _____

Witness (2)

Date

Address: _____

PATENT

REEL: 024778 FRAME: 0650

ASSIGNMENT

WHEREAS, YONG TIAN, residing at Peoria, Illinois, hereinafter referred to as ASSIGNOR has invented together with Douglas A. Rebinsky, Orhan Altin, Jedidiah M. Hastings and Xiaodong Liu a new and useful

ZINC OXIDE SULFUR SENSOR

for which ASSIGNOR has made application for Letters Patent in the United States of America, such invention being described and identified by said application identified as Application No. 12/817,936, filed June 17, 2010; 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;

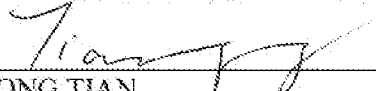
1. ASSIGNOR hereby sells, assigns, transfers and conveys unto ASSIGNEE the entire right, title and interest in and to said invention, any application therefor, and any Letters Patent granted thereon by the United States of America and any foreign country, including any continuing application, reissue 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..

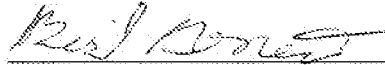
4. This assignment shall inure to the benefit of ASSIGNEE, its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, ASSIGNOR'S heirs and legal representatives.


IN TESTIMONY WHEREOF, ASSIGNOR has executed this instrument.


YONG TIAN

7/27/2010
Date

IN WITNESS OF the execution hereof by YONG TIAN we have hereunto set our hands.

 7/27/2010
Witness (1) Date
Address: 2720 W Radnor Ct
West Peoria, IL 61604

 7/27/2010
Witness (2) Date
Address: 5213 W 20th Pl.
Alsip, IL 60803

ASSIGNMENT

WHEREAS, XIAODONG LIU, residing at Peoria, Illinois, hereinafter referred to as ASSIGNOR has invented together with Douglas A. Rebinsky, Orhan Altin, Jedidiah M. Hastings and Yong Tian a new and useful

ZINC OXIDE SULFUR SENSOR

for which ASSIGNOR has made application for Letters Patent in the United States of America, such invention being described and identified by said application identified as Application No. 12/817,936, filed June 17, 2010; 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;

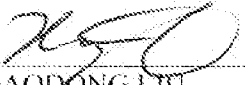
1. ASSIGNOR hereby sells, assigns, transfers and conveys unto ASSIGNEE the entire right, title and interest in and to said invention, any application therefor, and any Letters Patent granted thereon by the United States of America and any foreign country, including any continuing application, reissue 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.


XIAODONG LIU

July 27, 2010 XL
Date

IN WITNESS OF the execution hereof by XIAODONG LIU we have hereunto set our hands.

Dong Fei 07/27/2010
Witness (1) Date
Address: 1907 W Geneva Rd
Peoria, IL 61615

Chillicorbe 7/27/10
Witness (2) Date
Address: 1106 N 6th St
Chillicothe, IL 61523

ASSIGNMENT

WHEREAS, DOUGLAS A. REBINSKY, residing at Peoria, Illinois, hereinafter referred to as ASSIGNOR has invented together with Orhan Altin, Jedidiah M. Hastings, Yong Tian and Xiaodong Liu a new and useful

ZINC OXIDE SULFUR SENSOR

for which ASSIGNOR has made application for Letters Patent in the United States of America, such invention being described and identified by said application identified as Application No. 12/817,936, filed June 17, 2010; 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.

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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.




DOUGLAS A. REBINSKY

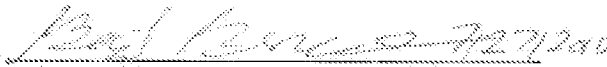
7/27/2010

Date

IN WITNESS OF the execution hereof by DOUGLAS A. REBINSKY we have hereunto set our hands.



Witness (1) Date 27 July 2010
Address: 601 W. Conroy Ave
Peoria, IL 61604



Witness (2) Date 7/27/2010
Address: 2720 W. Lafayette Rd
West Peoria, IL 61604

ASSIGNMENT

WHEREAS, ORHAN ALTIN, residing at Peoria, Illinois, hereinafter referred to as ASSIGNOR has invented together with Douglas A. Rebinsky, Jedidiah M. Hastings, Yong Tian and Xiaodong Liu a new and useful

ZINC OXIDE SULFUR SENSOR

for which ASSIGNOR has made application for Letters Patent in the United States of America, such invention being described and identified by said application identified as Application No. 12/817,936, filed June 17, 2010; 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.

O. Altin
ORHAN ALTIN

7/27/10
Date

IN WITNESS OF the execution hereof by ORHAN ALTIN we have hereunto set our hands.

Feng, Bao 7/27/10
Witness (1) 7/27/10 Date
Address: 1000 Shoreline Ct.
Downs, IL 61525

Daniel E. Blum 27 July 2010
Witness (2) 27 July 2010 Date
Address: 2018 Cloverfield Drive
Chillicothe, IL 61523

PATENT

RECORDED: 08/03/2010

REEL: 024778 FRAME: 0654