Form PTO-1595 (Rev. 07/05) OMB No. 0651-0027 (exp. 6/30/2008)  10351 To the Director of the U.S. Patent and Tragemark Office: Pleas	United States Patent and Trademark Office  T		
1. Name of conveying party(ies)	2. Name and address of receiving party(ies)		
Lifeng Wang Koti Padarthy Gengxun Gurley Kyle Enzinger	Name: Caterpillar Inc. ○ Internal Address:		
Additional name(s) of conveying party(ies) attached? Yes 🗹 No			
3. Nature of conveyance/Execution Date(s):	Street Address: 100 NE Adams Street		
Execution Date(s) 06-17-08; 06-17-08; 06-17-08; 06-18-08			
Assignment Merger	0.1		
Security Agreement Change of Name	City: Peoria		
☐ Joint Research Agreement	State: Illinois		
Government Interest Assignment	Country III		
Executive Order 9424, Confirmatory License	Country: US Zip: 61629		
Other	Additional name(s) & address(es) attached? Tes Ves No		
4. Application or patent number(s):  A. Patent Application No.(s)	document is being filed together with a new application.  B. Patent No.(s)		
Additional numbers attached? Yes VNo			
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1		
Name: Michael B. McNeil	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00		
Internal Address:	Authorized to be charged by credit card		
	Authorized to be charged to deposit account		
Street Address: 511 S. Madison Street	✓ Enclosed		
P.O. Box 2417	None required (government interest not affecting title)		

8. Payment Information City: Bloomington a. Credit Card Last 4 Numbers Zip:47402 State: Indiana Expiration Date Phone Number: 812-333-5355 b. Deposit Account Number 500226 Fax Number: 812-333-3173 Authorized User Name Michael B. McNeil Email Address: 6-20-08 9. Signature: Signature

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

Michael B. McNeil Name of Person Signing

46.86 GP

**PATENT REEL: 021178 FRAME: 0040** 

Date

Total number of pages including cover

WHEREAS, Lifeng Wang, residing at Dunlap, Illinois, hereinafter referred to as ASSIGNOR has invented together with Koti R. Padarthy, Gengxun K. Gurley and Kyle F. Enzinger a new and useful

## Z ORIFICE FEATURE FOR MECHANICALLY ACTUATED FUEL INJECTOR

Z ORIFICE PERTORE FOR MECHANICALET ACTORIED FOED INJECTOR
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  6-17-0  ; 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.
8005/17/do
LIFENG WANG Date '
DATE TO COMPANY OF THE PARK OF
NWITNESS OF the execution hereof LIFENG WANG we have hereunto set our hands.
Tay Verkstarzehovan 86/17/2008 Diangi Fang 00/17/2008
Witness (1) Date Witness (2) Date
Address: 1101 N SERENE GLVP Address:
DUNIZAP 12, 61525 10712 N. Trailside Ln.
Dunlan, 14 61525
JAMISE, IL UIS
08-152
i i

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**REEL: 021178 FRAME: 0041** 

WHEREAS, Koti R. Padarthy, residing at Edwards, Illinois, hereinafter referred to as ASSIGNOR has invented together with Lifeng Wang, Gengxun K. Gurley and Kyle E. Enzinger a new and useful

# Z ORIFICE FEATURE FOR MECHANICALLY ACTUATED FUEL INJECTOR

for which ASSIGNOR is about to file an international application and/o	,
Patent in the United States of America, such invention being described a	
having an attached International Application Request and/or an attached Attorney executed by ASSIGNOR on 6 -17 - 06	Declaration and Power of
WHEREAS, Caterpillar Inc., a Delaware corporation having a p	lace of business at Peoria, State
of Illinois, United States of America, hereinafter referred to as ASSIGN	EE, is desirous of acquiring the
entire right, title and interest in and to said invention and any Letters Pa	ent granted thereon by the United
States of America and any foreign country;	·
NOW, THEREFORE, in consideration of the sum of One Dolla	(\$1.00) and for other good and
valuable consideration received by ASSIGNOR from ASSIGNEE, the r	
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 L	,
the United States of America and any foreign country, including any country	, -
extension thereof, together with the right to file applications and obtain	
foreign country, and covenant that ASSIGNOR has the full right to do s	
2. At the request and expense of ASSIGNEB, ASSIGNOR agree	
any facts known respecting said invention, to execute all papers necessary	1
invention necessary or desirable to aid ASSIGNEE in obtaining and enf	ercing proper protection for said
invention in the United States of America and any foreign country.	
3. ASSIGNOR hereby authorizes and requests the COMMISSI	4
TRADEMARKS to issue the United States Letters Patent on said invent	ion, when granted, to Caterpillar
Inc.	
4. This assignment shall inure to the benefit of ASSIGNEE, its	, , ,
legal representatives, and shall be binding upon ASSIGNOR, ASSIGNO	R'S heirs and legal
representatives.	
IN TESTIMONY WHEREOF, ASSIGNOR has executed this in	strument.
Maria Maria	. ~
06/1/120	<u> </u>
KOTI R. PADARTHY Date	
,	
IN WITNESS OF the execution hereof KOTIR. PADARTHY we have	hereunto set our hands.
Jang tu	6/17/08
Witness (1) Date Witness (2)	Date
Address: Address:	
2417 W. Brooklyn Pl. 4315	French Dr
713	
Dunlap, IL 61525 Audap,	IL 6/525
08-152	
0071 <i>32</i>	

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WHEREAS, Gengxun K. Gurley, residing at Peoria, Illinois, hereinafter referred to as ASSIGNOR has invented together with Lifeng Wang, Koti R. Padarthy and Kyle E. Enzinger a new and useful

### Z ORIFICE FEATURE FOR MECHANICALLY ACTUAITED FUEL INJECTOR

	1101011	
for which ASSIGNOR is about to file an international Patent in the United States of America, such inversaving an attached International Application Requestrorney executed by ASSIGNOR on 6 WHEREAS, Caterpillar Inc., a Delaware of Illinois, United States of America, hereinafter respectively.	ntion being described a uest and/or an attached ~ (7 - 00 corporation having a p referred to as ASSIGN	nd identified by said application Declaration and Power of; and lace of business at Peoria, State 3E, is desirous of acquiring the
entire right, title and interest in and to said invention States of America and any foreign country;  NOW, THEREFORE, in consideration of valuable consideration received by ASSIGNOR fracknowledged by ASSIGNOR;  1. ASSIGNOR hereby sells, assigns, transport of the said invention and the said invention of the	f the sum of One Dolla rom ASSIGNEE, the r	(\$1.00) and for other good and ceipt of which is hereby
and interest in and to said invention, any applicati the United States of America and any foreign cour extension thereof, together with the right to file ap foreign country, and covenant that ASSIGNOR has 2. At the request and expense of ASSIGN any facts known respecting said invention, to exec	ntry, including any cor pplications and obtain p as the full right to do so NEE, ASSIGNOR agre	tinuing application, reissue or atents for said invention in any .  es to communicate to ASSIGNEE
invention necessary or desirable to aid ASSIGNE invention in the United States of America and any 3. ASSIGNOR hereby authorizes and red TRADEMARKS to issue the United States Letter Inc.	E in obtaining and enformation of the country. Expressed the COMMISSION Patent on said invent	on, when granted, to Caterpillar
4. This assignment shall inure to the bene legal representatives, and shall be binding upon A representatives.  IN TESTIMONY WHEREOF, ASSIGNO	ssignor, assigno	R'S heirs and legaï
GENGXUN K. GURLEY	06/17/2008 Date	<b></b>
Witness (1) Seeling (2) Date 6/17/53 Address:	Witness (2) Diangi Address:	Fmg Date 06/17/08
BB12 N. Kimberty Dr Peona 12 61614 08-152	10712 N.  Dunlap. 1	Tyailside Ln 61525

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**REEL: 021178 FRAME: 0043** 

WHEREAS, Kyle E. Enzinger, residing at Pontiac, Illinois, hereinafter referred to as ASSIGNOR has invented together with Lifeng Wang, Koti R. Padarthy and Gengxun K. Gurley a new and useful

Z ORIFICE FEATURE FOR MECHANICALLY ACTUATED FUEL INJECTOR
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 Jane 18, 2008; 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 sp.
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.
My E. Egy 6-18-08
KYLE E. ENZINGER Date
IN WITNESS OF the execution beneaf VVI C.E. ENIZINGED was have been as an hard
IN WITNESS OF the execution hereof KYLE E. ENZINGER we have hereunto set our hands.
Witness (1) Date Witness (2) Date
Address: Julie A. Fox Address: San C. Avasanala
14690N 2800E Rd. 1309 4HPank Rd, Apt 7
Saunemin, IL 61769 Pontiae, IL 61764

LUN-19-2008 OT:15 AM CATERPILLAR 3095789735

**RECORDED: 06/20/2008** 

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