11-15-2007

Form PTO-1595 (Rev. 08/05)
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U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office

103461156 Docket No: 06-718 To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below. 2. Name and address of receiving party(ies) 1. Name of conveying party(ies) Scott F. Shafer Caterpillar Inc. Christopher R. Jones 100 N.E. Adams Street Peoria IL 61629-6490 USA Additional name(s) of conveying party(ies) attached? Yes X No 3. Nature of conveyance/Execution Date(s): Execution Date(s) 09/26/2007 11/01/2007 X Assignment Merger **Security Agreement** Change of Name Joint Research Agreement Government Interest Assignment Executive Order 9424, Confirmatory License Additional name(s) & address(es) attached? Yes X No Other 4. Application or patent number(s): X This document is being filed together with a new application. A. Patent Application No.(s) B. Patent No.(s) Additional numbers attached? Yes X No 6. Total number of applications and patents 5. Name and address to whom correspondence concerning document should be mailed: involved: Mathew P. Anderson Name: 7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00 Internal Address: Caterpillar Inc. Authorized to be charged by credit card | X | Authorized to be charged to deposit account Intellectual Property Dept, AB6490 **Enclosed** 100 N. E. Adams Street Street Address: None required (government interest not affecting title) 8. Payment Information Peoria City: _____ a. Credit Card Last 4 Numbers _ Zip:__61629-6490 Expiration Date _ State: (309) 636-1194 b. Deposit Account Number 03-1129 Phone Number: (309) 675-1236 Authorized User Name Mathew P. Anderson Fax Number:_ Email Address: 0000064_0X1129 11981876 9. Signature: Signature Total number of pages including cover Mathew P. Anderson sheet, attachments, and documents: Name of Person Signing

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

REEL: 020121 FRAME: 0339

ASSIGNMENT

WHEREAS, SCOTT F. SHAFER, residing at Morton, Illinois, hereinafter referred to as ASSIGNOR has invented together with Christopher R. Jones a new and useful

VALVE ASSEMBLY

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 9.36.300 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.

JUNK SVIG	09-66.01
SCOTT F. SHAFEB	Date
	TT F. SHAFER we have hereunto set our hands.
	Did Chang 9/26/07
Witness (1) Address: 10115 Deerbook Truit	Witness (2) Date Address: 5517 Brook mere 50
Address: [0115 Deerbrak ruil	
Edwards, 1161528	Edwards, II 61528

PATENT REEL: 020121 FRAME: 0340

RECORDED: 11/01/2007

ASSIGNMENT

WHEREAS, CHRISTOPHER R. JONES, residing at Peoria, Illinois, hereinafter referred to as ASSIGNOR has invented together with Scott F. Shafer a new and useful

VALVE ASSEMBLY

for which ASSIGNOR Patent in the United Sta	s about to file an international application and/or make application for Letters tes of America, such invention being described and identified by said application	
having an attached Intel	national Application Request and/or an attached Declaration and Power of	
Attorney executed by A	SSIGNOR on $11/1/0.7$; and	
WHEREAS, C	sterpillar Inc., a Delaware corporation having a place of business at Peoria, State	
of Illinois, United State	s of America, hereinafter referred to as ASSIGNEE, is desirous of acquiring the erest in and to said invention and any Letters Patent granted thereon by the United	
Canal Character and	and foreign country	
States of America and a	ny toreign country,	
valuable consideration	FORE, in consideration of the sum of One Dollar (\$1.00) and for other good and received by ASSIGNOR from ASSIGNEE, the receipt of which is hereby	
acknowledged by ASSI	GNOR;	
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 An	nerica and any foreign country, including any continuing application, reissue or	
extension thereof, toget	her with the right to file applications and obtain patents for said invention in any	
foreign country, and co	venant that ASSIGNOR has the full right to do so.	
2. At the reque	st and expense of ASSIGNEE, ASSIGNOR agrees to communicate to ASSIGNEE	
any facts known respec	ting 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 iss	ue the United States Letters Patent on said invention, when granted, to Caterpillar	
lnc.		
A This assigns	nent 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		
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representatives.		
IN TESTIMON	Y WHEREOF, ASSIGNOR has executed this instrument.	
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Christopher.	R. Jones 11/1/0?	
CHRISTOPHER R. JC	NES Date	
	and the second s	
IN WITNESS OF the	recution hereof by CHRISTOPHER R. JONES we have hereunto set our hands.	
11/1/14	1 1/1/1/1/2002	
Mohall / Ka	Date Witness: 20834 N. SEQUEIA CV.	
Witness (1)	Date Witness (2)	
Address: 510 Wed	de und Ten Address: 20834 N. SEQUEIA CV.	
MELGINE	TL 6548 CHILLICUTAL, IC CISES	

PATENT

REEL: 020121 FRAME: 0341