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| Form PTO-1595 (Rev. 03-09) OMB No. 0651-0027 (exp. 03/31/2009 | 010 | U.S. DEPARTMENT OF COMMER United States Patent and Trademark | |
|---|------------------------|--|-------------|
| | | EET | |
| To the Director of the U.S. Pater 1036097 | 773 | d documents or the new address(es) below | |
| 1. Name of conveying party(ies) | 2. Name and a | address of receiving party(ies) | <u>و</u> |
| | Name: Caterpilla | ar Inc. | -6. -0. |
| Kannan Doraivelmanimozhi | Internal Addre | SS: 100 NE Adams Street | -3 |
| Additional name(s) of conveying party(ies) attached? Yes X No | 1 | | <u>.</u> |
| 3. Nature of conveyance/Execution Date(s): Execution Date(s) ₁₀₋₀₄₋₂₀₁₀ | Street Address | S | |
| X Assignment | | | |
| Security Agreement Change of Name | City: <u>Peoria</u> | | |
| Joint Research Agreement | State:Illinois | | |
| Government Interest Assignment | | | |
| Executive Order 9424, Confirmatory License | Country: us | Zip <u>ıs1629</u> | |
| Other | Additional name | (s) & address(es) attached? Tyes | √ No |
| A. Patent Application No.(s) $29/372085$ Additional numbers at | B. Patent N | | |
| 5. Name and address to whom correspondence concerning document should be mailed: | 6. Total numb | er of applications and patents | |
| Name Michael B. McNeil | 7 Total fee (3 | 7 CFR 1.21(h) & 3.41) \$ _{40.00} | |
| Internal Address <u>liell & McNeil Attorneys</u> PC | 7. 10.4. 100 (8 | 7 51 10 1.2 1(11) d. 5.4 1) \$\psi_{\frac{40.00}{2}}\$ | |
| P.O. Box 2417 | Authorized | d to be charged to deposit account | |
| Street Address: | | | |
| | None requ | uired (government interest not affecting | title) |
| City: Bloomington | 8. Payment Ir | nformation | |
| State:Indiana Zipa7402 | | | |
| Phone Number <u>312-333-5355</u> | Donosit A | ecount Number | |
| Fax Number: 812-333-3173 | Deposit Account Number | | |
| Email Address: mmcneil@liellmcneil.com | Authoriz | ed User Name | |
| 9. Signature: | XI | 10-13-2010 | |
| Signature | 7 | Date | |
| Michael B. McNeil Name of Person Signing | | Total number of pages including cover sheet, attachments, and documents: | 3 |

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

PATENT REEL: 025198 FRAME: 0720

SOLE/JOINT INVENTION (Worldwide Rights) Attorney Docket No. 09-557

ASSIGNMENT

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

STEP

for which I/We will or have filed a patent application; and

WHEREAS, Caterpillar Inc., a corporation of Delaware whose post office address is 100 N.E. Adams Street, Peoria, Illinois 61629, U.S.A. (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 on the basis of this application, and all applications for patents which may hereafter be filed for this invention in any country and all patents which may be granted on this invention in any country, and all extensions, renewals, and reissues thereof; and I/We hereby authorize and request any official of any country 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, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns;

AND, I/WE HEREBY authorize the attorneys/representatives that I/WE have empowered to prosecute this application to insert here in parentheses the country, application number, and official filing date (India Application No. 228611, filed 15 April 2010).

IN TESTIMONY WHEREOF, I/We have hereunto set our hands.

| FULL NAME OF SOLE OR FIRST ASSIGNOR Kannan Doraivelmanimozhi | ASSIGNOR'S SIGNATURE | DATE |
|---|----------------------|----------------------|
| ADDRESS Caterpillar Engineering Design Center, 7th Floor, International Tech Park | | CITIZENSHIP India |
| Chennai, Tamil Nadu 600113, India | | |

Page 1 of 2

SOLE/JOINT INVENTION (Worldwide Rights) Attorney Docket No. 09-557

| 1. witness name Hariharan Thevaseelan | WITNESS SIGNATURE | IC/CL/DCIC |
|--|-------------------|----------------------|
| ADDRESS Caterpillar Engineering Design Center, 7 th Floor, International Tech Park | | CITIZENSHIP India |
| Chennai, Tamil Nadu 600113, India | | |

| 2. WITNESS NAME Regini S Ehuraj | WITNESS SIGNATURE | DATE (C/C+/3-**) |
|---|-------------------|----------------------|
| ADDRESS Caterpillar Engineering Design Center, 7 th Floor, International Tech Park | | CITIZENSHIP India |
| Chennai, Tamil Nadu 600113, India | | |

Page 2 of 2

PATENT REEL: 025198 FRAME: 0722

RECORDED: 10/13/2010