

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3789432

|   |                                 |
|---|---------------------------------|
| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT                  |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT                      |
| <b>CONVEYING PARTY DATA</b>   |                                 |
| <b>Name</b>   | <b>Execution Date</b>           |
| CURTIS P. RITTER  | 10/08/2015                      |
| JOSEPH A. BELL  | 02/23/2016                      |
| RONALD J. MARRAH  | 10/08/2015                      |
| MATTHEW J. PIPHO  | 02/23/2016                      |
| <b>RECEIVING PARTY DATA</b>   |                                 |
| <b>Name:</b>  | DEERE & COMPANY                 |
| <b>Street Address:</b>  | ONE JOHN DEERE PLACE            |
| <b>City:</b>  | MOLINE                          |
| <b>State/Country:</b>   | ILLINOIS                        |
| <b>Postal Code:</b>   | 61265                           |
| <b>PROPERTY NUMBERS Total: 1</b>  |                                 |
| <b>Property Type</b>  | <b>Number</b>                   |
| Application Number:   | 14870685                        |
| <b>CORRESPONDENCE DATA</b>  |                                 |
| <b>Fax Number:</b>  | (414)277-0656                   |
| <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>   | (414)271-6560                   |
| <b>Email:</b>   | dahauser@michaelbest.com        |
| <b>Correspondent Name:</b>  | MICHAEL BEST & FRIEDRICH LLP    |
| <b>Address Line 1:</b>  | 100 EAST WISCONSIN AVENUE       |
| <b>Address Line 2:</b>  | SUITE 3300                      |
| <b>Address Line 4:</b>  | MILWAUKEE, WISCONSIN 53202-4108 |
| <b>ATTORNEY DOCKET NUMBER:</b>  | 208065-9022-US00                |
| <b>NAME OF SUBMITTER:</b>   | PLYMOUTH D. NELSON              |
| <b>SIGNATURE:</b>   | /plymouth d. nelson/            |
| <b>DATE SIGNED:</b>   | 03/17/2016                      |
| <b>Total Attachments: 12</b>  |                                 |
| source=18748589_208065-9022-US00_Signed_Declaration-Assignment_as_Filed#page1.tif   |                                 |
| source=18748589_208065-9022-US00_Signed_Declaration-Assignment_as_Filed#page2.tif   |                                 |

source=18748589\_208065-9022-US00\_Signed\_Declaration-Assignment\_as\_Filed#page3.tif  
source=18748589\_208065-9022-US00\_Signed\_Declaration-Assignment\_as\_Filed#page4.tif  
source=18748589\_208065-9022-US00\_Signed\_Declaration-Assignment\_as\_Filed#page5.tif  
source=18748589\_208065-9022-US00\_Signed\_Declaration-Assignment\_as\_Filed#page6.tif  
source=18748589\_208065-9022-US00\_Signed\_Declaration-Assignment\_as\_Filed#page7.tif  
source=18748589\_208065-9022-US00\_Signed\_Declaration-Assignment\_as\_Filed#page8.tif  
source=18748589\_208065-9022-US00\_Signed\_Declaration-Assignment\_as\_Filed#page9.tif  
source=18748589\_208065-9022-US00\_Signed\_Declaration-Assignment\_as\_Filed#page10.tif  
source=18748589\_208065-9022-US00\_Signed\_Declaration-Assignment\_as\_Filed#page11.tif  
source=18748589\_208065-9022-US00\_Signed\_Declaration-Assignment\_as\_Filed#page12.tif

## DECLARATION AND ASSIGNMENT

### MACHINE DIAGNOSTICS SYSTEM

Application Number: 14/870,685

Filing Date: September 30, 2015

#### DECLARATION

As a below named inventor, I hereby declare that:

- (1) The above-identified application was made or authorized to be made by me;
- (2) I believe that I am the original inventor or an original joint inventor of a claimed invention in the application;
- (3) I acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both;
- (4) I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above; and
- (5) I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

#### ASSIGNMENT

For good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, I, as a below named inventor, hereby irrevocably assign all right, title, and interest in any invention in the above-identified application and improvements thereof (the "Invention") to Deere & Company, a Delaware corporation, (the "Assignee") and hereby confirm any prior assignment (whether in writing or by operation of law) to Assignee.

I acknowledge that the above assignment includes, but is not limited to, worldwide rights to patents and registrations (e.g., design, invention, plant, utility, and utility model), copyrights, and similar industrial property rights relating to the Invention. Further, I acknowledge that said assignment includes without limitation any right of priority and any right to bring proceedings and obtain remedies for infringement, including for acts committed before or after the date of this assignment.

I acknowledge that the assigned rights hereunder shall include without limitation any applications, registrations, and proceedings of the above (e.g., continuations, continuations-in-part, divisionals, derivations, extensions, oppositions, provisionals, reissues, reexaminations, renewals, reviews, revivals, substitutes, and supplemental examination) relating to the Invention.

#### ADMINISTRATION

I, as a below named inventor, agree to cooperate with Assignee as reasonably necessary to obtain, maintain, and enforce any assigned rights, including executing documents and providing evidence, without additional compensation. I hereby covenant that I have not entered into, nor will I enter into, any agreement that conflicts with this assignment. Additionally, I hereby authorize any patent office in the world to issue any letters patent based on the assigned rights to the Assignee and authorize Assignee to modify this document with further identification of the Invention (e.g., application number and filing date) as Assignee deems expedient in order to record this document.

I declare and agree to all provisions of this writing by signing below.

*[Signature page to follow]*

Curtis P. Ritter 10/08/15 at Waterloo, IA  
Curtis P. Ritter Date City State

The signature of the above inventor is witnessed by two non-inventors or notarized as set forth below:

Sujathi SUBRAMANI Sujathi S 10/08/15  
Witness printed name Witness signature Date  
ANURADHARAO IYER An 10/08/15  
Witness printed name Witness signature Date

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) Notary Public  
Sworn to before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 2015. SEAL:

Joseph A. Bell \_\_\_\_\_ at \_\_\_\_\_, \_\_\_\_\_  
Joseph A. Bell Date City State

The signature of the above inventor is witnessed by two non-inventors or notarized as set forth below:

\_\_\_\_\_  
Witness printed name Witness signature Date  
\_\_\_\_\_  
Witness printed name Witness signature Date

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) Notary Public  
Sworn to before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 2015. SEAL:

\_\_\_\_\_, \_\_\_\_\_ at \_\_\_\_\_, \_\_\_\_\_  
 Ronald J. Marrah Date City State

The signature of the above inventor is witnessed by two non-inventors or notarized as set forth below:

|                               |                            |               |
|-------------------------------|----------------------------|---------------|
| _____<br>Witness printed name | _____<br>Witness signature | _____<br>Date |
|-------------------------------|----------------------------|---------------|

|                               |                            |               |
|-------------------------------|----------------------------|---------------|
| _____<br>Witness printed name | _____<br>Witness signature | _____<br>Date |
|-------------------------------|----------------------------|---------------|

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) Notary Public

Sworn to before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 2015.

Matthew J. Pipho \_\_\_\_\_ at \_\_\_\_\_, \_\_\_\_\_  
Date City State

The signature of the above inventor is witnessed by two non-inventors or notarized as set forth below:

|                               |                            |               |
|-------------------------------|----------------------------|---------------|
| _____<br>Witness printed name | _____<br>Witness signature | _____<br>Date |
|-------------------------------|----------------------------|---------------|

|                               |                            |               |
|-------------------------------|----------------------------|---------------|
| _____<br>Witness printed name | _____<br>Witness signature | _____<br>Date |
|-------------------------------|----------------------------|---------------|

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) Notary Public

Sworn to before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 2015.

## **DECLARATION AND ASSIGNMENT**

### **MACHINE DIAGNOSTICS SYSTEM**

Application Number: 14/870,685

Filing Date: September 30, 2015

#### **DECLARATION**

As a below named inventor, I hereby declare that:

- (1) The above-identified application was made or authorized to be made by me;
- (2) I believe that I am the original inventor or an original joint inventor of a claimed invention in the application;
- (3) I acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both;
- (4) I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above; and
- (5) I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

#### **ASSIGNMENT**

For good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, I, as a below named inventor, hereby irrevocably assign all right, title, and interest in any invention in the above-identified application and improvements thereof (the "Invention") to Deere & Company, a Delaware corporation, (the "Assignee") and hereby confirm any prior assignment (whether in writing or by operation of law) to Assignee.

I acknowledge that the above assignment includes, but is not limited to, worldwide rights to patents and registrations (e.g., design, invention, plant, utility, and utility model), copyrights, and similar industrial property rights relating to the Invention. Further, I acknowledge that said assignment includes without limitation any right of priority and any right to bring proceedings and obtain remedies for infringement, including for acts committed before or after the date of this assignment.

I acknowledge that the assigned rights hereunder shall include without limitation any applications, registrations, and proceedings of the above (e.g., continuations, continuations-in-part, divisionals, derivations, extensions, oppositions, provisionals, reissues, reexaminations, renewals, reviews, revivals, substitutes, and supplemental examination) relating to the Invention.

#### **ADMINISTRATION**

I, as a below named inventor, agree to cooperate with Assignee as reasonably necessary to obtain, maintain, and enforce any assigned rights, including executing documents and providing evidence, without additional compensation. I hereby covenant that I have not entered into, nor will I enter into, any agreement that conflicts with this assignment. Additionally, I hereby authorize any patent office in the world to issue any letters patent based on the assigned rights to the Assignee and authorize Assignee to modify this document with further identification of the Invention (e.g., application number and filing date) as Assignee deems expedient in order to record this document.

I declare and agree to all provisions of this writing by signing below.

*[Signature page to follow]*

\_\_\_\_\_ at \_\_\_\_\_, \_\_\_\_\_  
Curtis P. Ritter Date City State

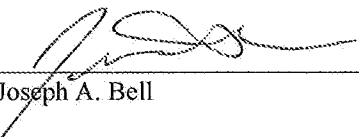
The signature of the above inventor is witnessed by two non-inventors or notarized as set forth below:

\_\_\_\_\_  
Witness printed name Witness signature Date


\_\_\_\_\_  
Witness printed name Witness signature Date

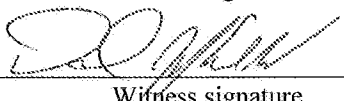
State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) Notary Public

Sworn to before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 2016. SEAL:

  
Joseph A. Bell 23 FEB 2016 at WATERLOO, IA  
Date City State

The signature of the above inventor is witnessed by two non-inventors or notarized as set forth below:

Brian Johnson  
Witness printed name  2/23/16  
Witness signature Date

DANIEL KOENIGSFELD  
Witness printed name  2/23/16  
Witness signature Date

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) Notary Public

Sworn to before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 2016. SEAL:

Ronald J. Marrah

The signature of the above inventor is witnessed by two non-inventors or notarized as set forth below:

Witness printed name

Witness signature

Date \_\_\_\_\_

Witness printed name

Witness signature

Date \_\_\_\_\_

State of \_\_\_\_\_)

County of \_\_\_\_\_)

Notary Public

Sworn to before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 2015.

SEAL:

Matthew J. Piphio

The signature of the above inventor is witnessed by two non-inventors or notarized as set forth below:

Witness printed name

Witness signature

Date \_\_\_\_\_

Witness printed name

Witness signature

---

Date

State of \_\_\_\_\_)

County of \_\_\_\_\_)

Notary Public

Sworn to before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 2015.

SEAL:



## **DECLARATION AND ASSIGNMENT**

### **MACHINE DIAGNOSTICS SYSTEM**

Application Number: 14/870,685

Filing Date: September 30, 2015

#### **DECLARATION**

As a below named inventor, I hereby declare that:

- (1) The above-identified application was made or authorized to be made by me;
- (2) I believe that I am the original inventor or an original joint inventor of a claimed invention in the application;
- (3) I acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both;
- (4) I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above; and
- (5) I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

#### **ASSIGNMENT**

For good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, I, as a below named inventor, hereby irrevocably assign all right, title, and interest in any invention in the above-identified application and improvements thereof (the "Invention") to Deere & Company, a Delaware corporation, (the "Assignee") and hereby confirm any prior assignment (whether in writing or by operation of law) to Assignee.

I acknowledge that the above assignment includes, but is not limited to, worldwide rights to patents and registrations (e.g., design, invention, plant, utility, and utility model), copyrights, and similar industrial property rights relating to the Invention. Further, I acknowledge that said assignment includes without limitation any right of priority and any right to bring proceedings and obtain remedies for infringement, including for acts committed before or after the date of this assignment.

I acknowledge that the assigned rights hereunder shall include without limitation any applications, registrations, and proceedings of the above (e.g., continuations, continuations-in-part, divisionals, derivations, extensions, oppositions, provisionals, reissues, reexaminations, renewals, reviews, revivals, substitutes, and supplemental examination) relating to the Invention.

#### **ADMINISTRATION**

I, as a below named inventor, agree to cooperate with Assignee as reasonably necessary to obtain, maintain, and enforce any assigned rights, including executing documents and providing evidence, without additional compensation. I hereby covenant that I have not entered into, nor will I enter into, any agreement that conflicts with this assignment. Additionally, I hereby authorize any patent office in the world to issue any letters patent based on the assigned rights to the Assignee and authorize Assignee to modify this document with further identification of the Invention (e.g., application number and filing date) as Assignee deems expedient in order to record this document.

I declare and agree to all provisions of this writing by signing below.

*[Signature page to follow]*

\_\_\_\_\_, \_\_\_\_\_ at \_\_\_\_\_, \_\_\_\_\_  
Curtis P. Ritter Date City State

The signature of the above inventor is witnessed by two non-inventors or notarized as set forth below:

|                               |                            |               |
|-------------------------------|----------------------------|---------------|
| _____<br>Witness printed name | _____<br>Witness signature | _____<br>Date |
|-------------------------------|----------------------------|---------------|

|                               |                            |               |
|-------------------------------|----------------------------|---------------|
| _____<br>Witness printed name | _____<br>Witness signature | _____<br>Date |
|-------------------------------|----------------------------|---------------|

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) Notary Public

Sworn to before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 2015.

\_\_\_\_\_  
Joseph A. Bell

\_\_\_\_\_ at \_\_\_\_\_, \_\_\_\_\_  
Date City State

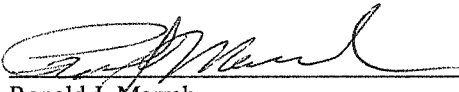
The signature of the above inventor is witnessed by two non-inventors or notarized as set forth below:

|                               |                            |               |
|-------------------------------|----------------------------|---------------|
| _____<br>Witness printed name | _____<br>Witness signature | _____<br>Date |
|-------------------------------|----------------------------|---------------|

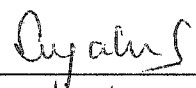
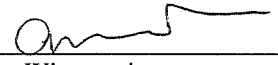
|                               |                            |               |
|-------------------------------|----------------------------|---------------|
| _____<br>Witness printed name | _____<br>Witness signature | _____<br>Date |
|-------------------------------|----------------------------|---------------|

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) Notary Public

Sworn to before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 2015.

 10/8/15 at Waterloo, IA  
Ronald J. Marrah Date City State

The signature of the above inventor is witnessed by two non-inventors or notarized as set forth below:

|                          |   |                 |
|--------------------------|---|-----------------|
| <u>SUJATHA SUBRAMANI</u> | <u></u> | <u>10/08/15</u> |
| Witness printed name     | Witness signature   | Date            |
| <u>ANURADHA RAD-1YER</u> | <u></u> | <u>10/8/15</u>  |
| Witness printed name     | Witness signature   | Date            |

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ )

Notary Public

Sworn to before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 2015.

SEAL:

\_\_\_\_\_  
Matthew J. Pipho Date at \_\_\_\_\_, \_\_\_\_\_ State

The signature of the above inventor is witnessed by two non-inventors or notarized as set forth below:

|                               |                            |               |
|-------------------------------|----------------------------|---------------|
| _____<br>Witness printed name | _____<br>Witness signature | _____<br>Date |
| _____<br>Witness printed name | _____<br>Witness signature | _____<br>Date |

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ )

Notary Public

Sworn to before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 2015.

SEAL:

## **DECLARATION AND ASSIGNMENT**

### **MACHINE DIAGNOSTICS SYSTEM**

Application Number: 14/870,685

Filing Date: September 30, 2015

#### **DECLARATION**

As a below named inventor, I hereby declare that:

- (1) The above-identified application was made or authorized to be made by me;
- (2) I believe that I am the original inventor or an original joint inventor of a claimed invention in the application;
- (3) I acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both;
- (4) I have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above; and
- (5) I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

#### **ASSIGNMENT**

For good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, I, as a below named inventor, hereby irrevocably assign all right, title, and interest in any invention in the above-identified application and improvements thereof (the "Invention") to Deere & Company, a Delaware corporation, (the "Assignee") and hereby confirm any prior assignment (whether in writing or by operation of law) to Assignee.

I acknowledge that the above assignment includes, but is not limited to, worldwide rights to patents and registrations (e.g., design, invention, plant, utility, and utility model), copyrights, and similar industrial property rights relating to the Invention. Further, I acknowledge that said assignment includes without limitation any right of priority and any right to bring proceedings and obtain remedies for infringement, including for acts committed before or after the date of this assignment.

I acknowledge that the assigned rights hereunder shall include without limitation any applications, registrations, and proceedings of the above (e.g., continuations, continuations-in-part, divisionals, derivations, extensions, oppositions, provisionals, reissues, reexaminations, renewals, reviews, revivals, substitutes, and supplemental examination) relating to the Invention.

#### **ADMINISTRATION**

I, as a below named inventor, agree to cooperate with Assignee as reasonably necessary to obtain, maintain, and enforce any assigned rights, including executing documents and providing evidence, without additional compensation. I hereby covenant that I have not entered into, nor will I enter into, any agreement that conflicts with this assignment. Additionally, I hereby authorize any patent office in the world to issue any letters patent based on the assigned rights to the Assignee and authorize Assignee to modify this document with further identification of the Invention (e.g., application number and filing date) as Assignee deems expedient in order to record this document.

I declare and agree to all provisions of this writing by signing below.

*[Signature page to follow]*

\_\_\_\_\_ at \_\_\_\_\_, \_\_\_\_\_  
Curtis P. Ritter Date City State

The signature of the above inventor is witnessed by two non-inventors or notarized as set forth below:

|                               |                            |               |
|-------------------------------|----------------------------|---------------|
| _____<br>Witness printed name | _____<br>Witness signature | _____<br>Date |
|-------------------------------|----------------------------|---------------|

|                               |                            |               |
|-------------------------------|----------------------------|---------------|
| _____<br>Witness printed name | _____<br>Witness signature | _____<br>Date |
|-------------------------------|----------------------------|---------------|

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) Notary Public

Sworn to before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 2015.

\_\_\_\_\_  
Joseph A. Bell

\_\_\_\_\_ at \_\_\_\_\_, \_\_\_\_\_  
Date City State

The signature of the above inventor is witnessed by two non-inventors or notarized as set forth below:

|                               |                            |               |
|-------------------------------|----------------------------|---------------|
| _____<br>Witness printed name | _____<br>Witness signature | _____<br>Date |
|-------------------------------|----------------------------|---------------|

|                               |                            |               |
|-------------------------------|----------------------------|---------------|
| _____<br>Witness printed name | _____<br>Witness signature | _____<br>Date |
|-------------------------------|----------------------------|---------------|

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) Notary Public

Sworn to before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 2015.

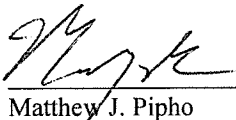
\_\_\_\_\_  
Ronald J. Marrah Date at \_\_\_\_\_, \_\_\_\_\_  
City State

The signature of the above inventor is witnessed by two non-inventors or notarized as set forth below:

\_\_\_\_\_  
Witness printed name Witness signature Date

\_\_\_\_\_  
Witness printed name Witness signature Date

State of \_\_\_\_\_  
County of \_\_\_\_\_  
Sworn to before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 2016. Notary Public  
SEAL:

  
Matthew J. Piphro Date at \_\_\_\_\_, \_\_\_\_\_  
Date City State

The signature of the above inventor is witnessed by two non-inventors or notarized as set forth below:

Brian S Magerkunth  
Witness printed name Witness signature Date  
23 Feb 16

RICHARD W. OSTERMAN Richard W. Osterman  
Witness printed name Witness signature Date  
23 Feb 2016

State of \_\_\_\_\_  
County of \_\_\_\_\_  
Sworn to before me this \_\_\_\_\_ day  
of \_\_\_\_\_, 2016. Notary Public  
SEAL: