

## PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT6988555

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
JAMES E. MCCARTHY JR.	06/25/2018
DOUGLAS J. NIELSEN	06/28/2018
BRIAN FRANKE	06/19/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	EATON INTELLIGENT POWER LIMITED
<b>Street Address:</b>	30 PEMBROKE ROAD
<b>City:</b>	DUBLIN
<b>State/Country:</b>	IRELAND
<b>Postal Code:</b>	4
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16326699
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<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>Email:</b>	cjohnson@meimark.com
<b>Correspondent Name:</b>	MEI & MARK LLP
<b>Address Line 1:</b>	P.O. BOX 65981
<b>Address Line 4:</b>	WASHINGTON, D.C. 20035-5981
<b>ATTORNEY DOCKET NUMBER:</b>	20018.0165-US
<b>NAME OF SUBMITTER:</b>	CHRISTINA JOHNSON
<b>SIGNATURE:</b>	/CJ/
<b>DATE SIGNED:</b>	10/26/2021
<b>Total Attachments: 6</b>	
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source=16ECD886PCTUSnielsenassignment200180165PCT#page2.tif	
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## ASSIGNMENT

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

### MEDIUM DUTY DIESEL CDA DEMO USING VALVETRAIN SPECIFIC HARDWARE

for which I/We executed a United States provisional application on August 17, 2016 (Application No. 62/376,128);

for which I/We executed a United States provisional application on October 27, 2016 (Application No. 62/413,451);

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

### FRICTION MITIGATION IN CYLINDER DEACTIVATION

for which I/We executed a Patent Cooperation Treaty on August 17, 2017 (Application No. PCT/US2017/047307);

WHEREAS, Eaton Intelligent Power Limited whose address is 30 Pembroke Road, Dublin 4, Ireland (hereinafter referred to as Assignee), is desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the applications for United States Letters Patent on this invention and the Letters Patent to be issued upon these applications;

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, US provisional Application No. 62/376,128 filed August 17, 2016, US provisional Application No. 62/413,451 filed October 27, 2016, Patent Cooperation Treaty Application No. PCT/US2017/047307 filed August 17, 2017, and all nonprovisional applications, divisions, and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues thereof, and all rights to claim priority on the basis of the above applications, as well as all rights to claim priority on the basis of these applications, and all applications for Letters Patent which may hereafter be filed for this invention in any foreign country and all Letters Patent which may be granted on this invention in any foreign country, and all extensions, renewals, and reissues thereof; and I/We hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent 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;

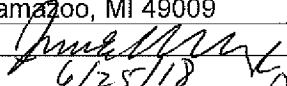
AND, I/WE HEREBY further covenant and agree that I/We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to me/us respecting this invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver 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 provisional, 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 the United States and any foreign 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 declare that, as a below named inventor, that the above-identified application was made or authorized to be made by me. I believe I am the original inventor or an original joint inventor of a claimed invention in the application. I hereby acknowledge that any willful false statement made in these declarations is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. I have read and understood the above-identified application, including any claims therein. I understand that I have a duty to disclose prior art to the US Patent and Trademark Office.

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

Name: James E. McCarthy, Jr.

Address: 5424 Sundowner Dr.  
Kalamazoo, MI 49009

By: 

Date: 6/25/18

Witness

Signature: 

## ASSIGNMENT

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

### FRICTION MITIGATION IN CYLINDER DEACTIVATION

for which I/We executed a Patent Cooperation Treaty on August 17, 2017 (Application No. PCT/US2017/047307);

WHEREAS, Eaton Intelligent Power Limited whose address is 30 Pembroke Road, Dublin 4, Ireland (hereinafter referred to as Assignee), is desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the applications for United States Letters Patent on this invention and the Letters Patent to be issued upon these applications;

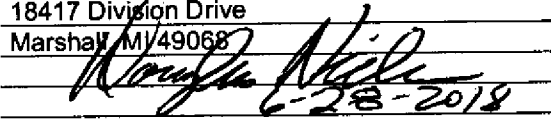
NOW THEREFORE, be it known that, for good and valuable consideration the receipt of which from Assignee is hereby acknowledged, I/We, as Assignor(s), have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, my/our entire right, title, and interest in and to this invention, Patent Cooperation Treaty Application No. PCT/US2017/047307 filed August 17, 2017, and all nonprovisional applications, divisions, and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues thereof, and all rights to claim priority on the basis of the above applications, as well as all rights to claim priority on the basis of these applications, and all applications for Letters Patent which may hereafter be filed for this invention in any foreign country and all Letters Patent which may be granted on this invention in any foreign country, and all extensions, renewals, and reissues thereof; and I/We hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

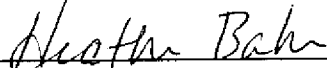
AND, I/WE HEREBY covenant that I/We have the full right to convey the interest assigned by this Assignment, and I/We have not executed and will not execute any agreement in conflict with this Assignment;

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 provisional, 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 the United States and any foreign 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 declare that, as a below named inventor, that the above-identified application was made or authorized to be made by me. I believe I am the original inventor or an original joint inventor of a claimed invention in the application. I hereby acknowledge that any willful false statement made in these declarations is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. I have read and understood the above-identified application, including any claims therein. I understand that I have a duty to disclose prior art to the US Patent and Trademark Office.

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

Name: Douglas J. Nielsen  
Address: 18417 Division Drive  
Marshall, MI 49068  
By:   
Date: 6-28-2018

Witness  
Signature: 

Heather Baker - Troy-Miami County Public Library

Name: Brian Franke  
Address: 2259 S. 475 E.  
Hamilton, IN 46742  
By: \_\_\_\_\_  
Date: \_\_\_\_\_

Witness  
Signature: \_\_\_\_\_

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

### FRICION MITIGATION IN CYLINDER DEACTIVATION

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WHEREAS, Eaton Intelligent Power Limited whose address is 30 Pembroke Road, Dublin 4, Ireland (hereinafter referred to as Assignee), is desirous of securing the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to the applications for United States Letters Patent on this invention and the Letters Patent to be issued upon these applications;

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, Patent Cooperation Treaty Application No. PCT/US2017/047307 filed August 17, 2017, and all nonprovisional applications, divisions, and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues thereof, and all rights to claim priority on the basis of the above applications, as well as all rights to claim priority on the basis of these applications, and all applications for Letters Patent which may hereafter be filed for this invention in any foreign country and all Letters Patent which may be granted on this invention in any foreign country, and all extensions, renewals, and reissues thereof; and I/We hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent 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 provisional, 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 the United States and any foreign 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 declare that, as a below named inventor, that the above-identified application was made or authorized to be made by me. I believe I am the original inventor or an original joint inventor of a claimed invention in the application. I hereby acknowledge that any willful false statement made in these declarations is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. I have read and understood the above-identified application, including any claims therein. I understand that I have a duty to disclose prior art to the US Patent and Trademark Office.

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

Name: Douglas J. Nielsen  
Address: 18417 Division Drive  
Marshall, MI 49068  
By: \_\_\_\_\_  
Date: \_\_\_\_\_

Witness  
Signature: \_\_\_\_\_

Name: Brian Franke  
Address: 2259 S. 475 E.  
Hamilton, IN 46742  
By: Brian Franke  
Date: 06-17-2018

Witness  
Signature: [Signature]