

## PATENT ASSIGNMENT COVER SHEET

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Stylesheet Version v1.2

EPAS ID: PAT3990050

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
AUSTIN P. ROE	08/01/2016
SCOTT A. THOMPSON	07/27/2016
ANTHONY T. PETROU	07/28/2016
MICHAEL J CAMPAGNA	07/27/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	CATERPILLAR INC.
<b>Street Address:</b>	100 NE ADAMS ST.
<b>Internal Address:</b>	AH 9510
<b>City:</b>	PEORIA
<b>State/Country:</b>	ILLINOIS
<b>Postal Code:</b>	61629
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15223869
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(309)675-1236
<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>	3096362223
<b>Email:</b>	US_Docket_Clerk@cat.com
<b>Correspondent Name:</b>	CATERPILLAR INC. INTELLECTUAL PROPERTY D
<b>Address Line 1:</b>	100 N.E. ADAMS STREET
<b>Address Line 2:</b>	AH 9510
<b>Address Line 4:</b>	PEORIA, ILLINOIS 61629-9510
<b>ATTORNEY DOCKET NUMBER:</b>	16-0699
<b>NAME OF SUBMITTER:</b>	KELLY A UMHOLTZ
<b>SIGNATURE:</b>	/kelly a umholtz/
<b>DATE SIGNED:</b>	08/03/2016
<b>Total Attachments: 5</b>	

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**ASSIGNMENT**

WHEREAS We, the below named inventors, [hereinafter referred to as Assignors], have made an invention entitled:

**SYSTEM FOR DETERMINING PISTON DAMAGE BASED ON CARBON DEPOSIT GROWTH**

for which WE will file a patent application; and

WHEREAS, **Caterpillar Inc.**, a corporation of **Delaware**, whose post office address is **100 NE Adams Street, Peoria, State of Illinois 61629** (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;

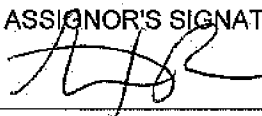
NOW THEREFORE, be it known that for good and valuable consideration the receipt of which from Assignee is hereby acknowledged, We, as Assignors, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, our 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 in any country or jurisdiction or patent office on the basis of this application, and all applications for patents which may hereafter be filed for this invention in any country or jurisdiction or patent office and all patents which may be granted on this invention in any country or jurisdiction or patent office, and all extensions, renewals, and reissues thereof; and We hereby authorize and request any official of any country or jurisdiction or patent office 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, WE HEREBY covenant that We have the full right to convey the interest assigned by this Assignment, and We have not executed and will not execute any agreement in conflict with this Assignment;

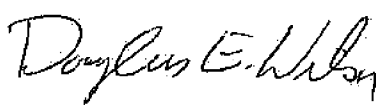
AND, WE HEREBY further covenant and agree that We will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to us respecting this invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any 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 or jurisdiction or patent office, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns;

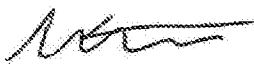
AND, WE HEREBY authorize Assignee or the attorneys/representatives of Assignee to insert here in parentheses the country, application number, and official filing date ( \_\_\_\_\_ Application No. \_\_\_\_\_, filed \_\_\_\_\_).

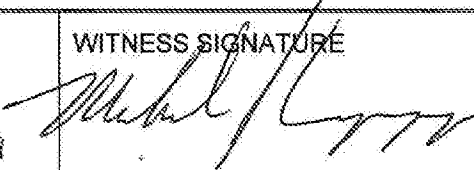
IN TESTIMONY WHEREOF, I have hereunto set my hand.


1. FULL NAME OF FIRST ASSIGNOR AUSTIN P. ROE	ASSIGNOR'S SIGNATURE 	DATE 8/1/16
ADDRESS 137 North Ohio Ave Morton, IL 61550		CITIZENSHIP US

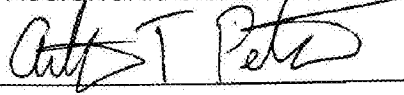
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2. WITNESS NAME Doy Wilson	WITNESS SIGNATURE 	DATE 8-1-16
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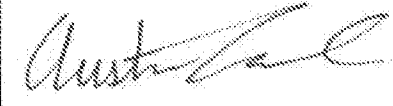
2. WITNESS NAME Daniel I. Lang	WITNESS SIGNATURE 	DATE July 27 2016
ADDRESS 618 Drake Lane Washington IL 61571		


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1. WITNESS NAME Keith N.E. Troisi	WITNESS SIGNATURE 	DATE 07/28/2016
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2. WITNESS NAME Andrew J Peplinski	WITNESS SIGNATURE 	DATE 7-28-16
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1. FULL NAME OF FOURTH ASSIGNOR MICHAEL J. CAMPAGNA	ASSIGNOR'S SIGNATURE 	DATE July 27, 2016
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1. WITNESS NAME Austin Kaul	WITNESS SIGNATURE 	DATE July 27, 2016
ADDRESS 41653 310 <sup>th</sup> St. Springfield, SD 57062		

2. WITNESS NAME Scott Thompson	WITNESS SIGNATURE 	DATE July 27, 2016
ADDRESS 1605 Oak Ridge Washington, IL 61571		