504317544 04/12/2017

PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|--|----------------|
| TOYOTA MOTOR ENGINEERING & MANUFACTURING NORTH AMERICA, INC. | 03/31/2017 |

RECEIVING PARTY DATA

| Name: | TOYOTA JIDOSHA KABUSHIKI KAISHA | |
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PROPERTY NUMBERS Total: 1

| Property Type | Number |
|----------------|---------|
| Patent Number: | 9584117 |

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| NAME OF SUBMITTER: | CHLOE CAMERON | |
| SIGNATURE: | /Chloe Cameron/ | |
| DATE SIGNED: | 04/12/2017 | |

Total Attachments: 2

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PATENT 504317544 REEL: 041981 FRAME: 0012

ASSIGNMENT

WHEREAS, Toyota Motor Engineering & Manufacturing North America, Inc., a Kentucky corporation, having a place of business at 25 Atlantic Avenue, Erlanger, Kentucky 41018, is the exclusive owner, by assignment, of the application for letters patent Application No. 15/075,930, filed March 21, 2016; and which will issue as Letters Patent of the United States of America No. 9,584,117, on February 28, 2017; and

WHEREAS, Toyota Jidosha Kabushiki Kaisha having a place of business at 1, Toyota-cho, Toyota-shi, Aichi-ken 471-8571, Japan, a corporation organized and existing under the laws of the Country of Japan (hereinafter referred to as "ASSIGNEE"), is desirous of acquiring the entire right, title and interest in and to said Letters Patent;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00) and other valuable consideration, the receipt of which is hereby acknowledged, Toyota Motor Engineering & Manufacturing North America, Inc. by these presents do sell, assign, and transfer unto ASSIGNEE the entire right, title and interest for the territory of the United States of America, in and to the aforesaid Letters Patent and the invention described therein, and any reissue or reissues of said Letters Patent to the full end of the term for which said Letters Patent have been granted or reissues may be granted, said invention and Letters Patent to be held and enjoyed by the ASSIGNEE for the use and behoof of said ASSIGNEE, and for the use and behoof of their successors, assigns or other legal representatives, and for claims for damage by reasons of infringement past and present, as fully and entirely as the same would have been held by Toyota Motor

PATENT REEL: 041981 FRAME: 0013 Engineering & Manufacturing North America, Inc. had this Assignment and sale not been made.

IN TESTIMONY WHEREOF, Toyota Motor Engineering & Manufacturing

North America, Inc. has caused these presents to be signed by its officer thereunto duly authorized.

TOYOTA MOTOR ENGINEERING & MANUFACTURING NORTH

AMERICA, INC.

Date: 3/31/2017

Mime: Frederick W. Mau, II

Title: Intellectual Property Counsel

PATENT REEL: 041981 FRAME: 0014

RECORDED: 04/12/2017