505213680 11/30/2018 PATENT ASSIGNMENT COVER SHEET

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| NATURE OF CONVEYANCE: ASSIGNMENT CONVEYING PARTY DATA Name DANIEL L. FADGEN Name JARED ISAMU TAKETA JOSEPH A. SWIFT JOSEPH A. SWIFT DANIEL FEINSTEIN RECEIVING PARTY DATA ROLLS-ROYCE CORPORATION Street Address: 450 SOUTH MERIDIAN STREET City: INDIANAPOLIS State/Country: INDIANA Postal Code: 46225 PROPERTY NUMBERS Total: 1 Number Application Number: 16205881 | | | | | | | | | | |
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| ATTORNEY DOCKET NUMBER: G2640-00275 / RC/ | G2640-00275 / RCA12234 | | | | | | | | | |
| IAME OF SUBMITTER: D. JOSEPH ENGLI | D. JOSEPH ENGLISH | | | | | | | | | |
| SIGNATURE: /D. Joseph English/ | /D. Joseph English/ | | | | | | | | | |
| DATE SIGNED: 11/30/2018 | | | | | | | | | | |

ASSIGNMENT

Name of Inventor

| Daniel L. Fadgen | |
|--------------------|--|
| Jared Isamu Taketa | |
| Joseph A. Swift | |
| Daniel Feinstein | |

For good and valuable consideration, sufficiency and receipt of which is hereby acknowledged by the undersigned(s), the undersigned agree(s) to assign, and hereby do(es) assign, transfer and set over to

| Name of Assignee | Rolls-Royce Corporation |
|---------------------|-----------------------------|
| Address of Assignee | 450 South Meridian Street |
| | Indianapolis, Indiana 46225 |

and its successors, legal representatives and assigns (hereinafter designated as the Assignee) the entire right, title and interest in the invention disclosed and/or claimed in the United States application identified below, as well as all applications for patent and any Letters Patent which may be granted therefor and therefrom in the United States of America and all foreign countries, and in and to any and all divisions, continuations, continuations-in-part of said applications, or re-issues or extensions of said patents or Letters Patent, and all rights under the International Convention for the Protection of Industrial Property:

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The undersigned further agree(s) to cooperate with the Assignee in every way possible and to do all affirmative acts, and to execute all papers which counsel for Assignee shall advise are necessary and/or desirable without charge to Assignee in connection with said applications including, without limitation, the execution of separate assignments in connection with such applications, claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patent of the United States resulting from said application or any division or divisions or continuing applications thereof to said Assignee, as Assignee of the entire interest, and hereby covenants that he/she has (they have) full right to convey the entire interest herein assigned, and that he/she has (they have) not executed and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) to Patrick D. McPherson, Reg. No. 46,255; Mark C. Comtois, Reg. No. 46,285; D. Joseph English, Reg. No. 42,514; Patrick C. Muldoon, Reg. No. 47,343; and Justus L. Getty, Reg. No. 70,395 the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent Office for recordation of this document.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date 11/28/2018

Signature of Inventor

Date 11 /29/2015

Signature of Inventor

Jared Isamu Taketa

Date_//

Signature of Inventor

Date 11 28/2018

Signature of Inventor

Daniel Feinstein

RECORDED: 11/30/2018