507967566 06/20/2023

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT8014704

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
Craig W BEMMENT	01/05/2023
Benjamin J KEELER	01/06/2023
Christopher P MADDEN	01/05/2023
Andrea MINELLI	01/09/2023
Peter SWANN	01/05/2023
Martin K. YATES	01/09/2023

# **RECEIVING PARTY DATA**

Name:	ROLLS-ROYCE PLC
Street Address:	Kings Place, 90 York Way
City:	London
State/Country:	United Kingdom
Postal Code:	N1 9FX

## **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	18337519

## **CORRESPONDENCE DATA**

Fax Number: (703)836-2787

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.

Phone: 703-836-6400 email@oliff.com Email: AARON L. WEBB **Correspondent Name:** 

**OLIFF PLC** Address Line 1:

Address Line 2: P.O. BOX 320850

Address Line 4: ALEXANDRIA, VIRGINIA 22320-4850

ATTORNEY DOCKET NUMBER:	224754.40
NAME OF SUBMITTER:	ANGELA M. NOLAN
SIGNATURE:	/Angela M. Nolan/
DATE SIGNED:	06/20/2023

**PATENT** REEL: 063991 FRAME: 0483

507967566

# Total Attachments: 6 source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif source=Assignment#page4.tif source=Assignment#page5.tif source=Assignment#page6.tif

PATENT REEL: 063991 FRAME: 0484

This document is directed to the below identified patent document(s)

CASE NUMBER	2022P00071 GB
TITLE	Aircraft Heat Management
DOCUMENT	FILING DATE
NUMBER	

WHEREAS, Rolls-Royce plc, a corporation (hereinafter "ASSIGNEE"), having a place of business at Kings Place, 90 York Way, N1 9FX London, United Kingdom is desirous of acquiring the entire right, title, and interest in and to the above-referenced patent document(s), all priority patent application(s) related to the above-referenced patent document(s), and/or all subject matter disclosed in the above-referenced patent document(s) and/or the related priority patent application(s) (hereinafter "INTELLECTUAL PROPERTY"), and further in and to any Letters Patent granted from the INTELLECTUAL PROPERTY worldwide;

NOW, THEREFORE, for good and valuable consideration, the sufficiency of which is acknowledged, I hereby sell, assign, and set over to ASSIGNEE, the full and exclusive right to the INTELLECTUAL PROPERTY worldwide (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the application) and the entire right, title, and interest in and to any and all Letters Patent granted on the INTELLECTUAL PROPERTY worldwide and in and to any and all divisionals, reissues, continuations, substitutions, and renewals thereof.

I hereby authorize and request the Patent Office officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of the Letters Patent, when granted, to ASSIGNEE as the assignee of my entire right, title, and interest in and to the same, for the sole use and benefit of ASSIGNEE, its successors and assigns, to the full end of the term for which the Letters Patent are granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made and hereby covenants that I have full right to convey the interest herein assigned, and that the undersigned has not executed, and will not execute, any agreement in conflict herewith.

Further, I agree to communicate to ASSIGNEE or its representatives any facts known to me regarding the INTELLECTUAL PROPERTY and will testify in any legal proceeding regarding the INTELLECTUAL PROPERTY, cooperate in every way possible in obtaining evidence in support of rights associated with INTELLECTUAL PROPERTY. I agree to execute all papers for divisional, continuation, substitute, renewal, and reissue applications, execute all necessary assignment papers to cause any and all of the Letters Patent to be issued to ASSIGNEE, make all rightful oaths, and generally do everything possible to aid ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for the INTELLECTUAL PROPERTY worldwide.

I hereby grant the attorney of record 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 and Trademark Office for recordation of this assignment.

LEGAL NAME OF INVENTOR: Craig W BEMMENT

SIGNATURE: Craig W Bumment

DATE: 05-Jan-2023 | 21:52 GMT

This document is directed to the below identified patent document(s)

CASE NUMBER	2022P00071 GB
TITLE	Aircraft Heat Management
DOCUMENT	FILING DATE
NUMBER	

WHEREAS, Rolls-Royce plc, a corporation (hereinafter "ASSIGNEE"), having a place of business at Kings Place, 90 York Way, N1 9FX London, United Kingdom is desirous of acquiring the entire right, title, and interest in and to the above-referenced patent document(s), all priority patent application(s) related to the above-referenced patent document(s), and/or all subject matter disclosed in the above-referenced patent document(s) and/or the related priority patent application(s) (hereinafter "INTELLECTUAL PROPERTY"), and further in and to any Letters Patent granted from the INTELLECTUAL PROPERTY worldwide;

NOW, THEREFORE, for good and valuable consideration, the sufficiency of which is acknowledged, I hereby sell, assign, and set over to ASSIGNEE, the full and exclusive right to the INTELLECTUAL PROPERTY worldwide (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the application) and the entire right, title, and interest in and to any and all Letters Patent granted on the INTELLECTUAL PROPERTY worldwide and in and to any and all divisionals, reissues, continuations, substitutions, and renewals thereof.

I hereby authorize and request the Patent Office officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of the Letters Patent, when granted, to ASSIGNEE as the assignee of my entire right, title, and interest in and to the same, for the sole use and benefit of ASSIGNEE, its successors and assigns, to the full end of the term for which the Letters Patent are granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made and hereby covenants that I have full right to convey the interest herein assigned, and that the undersigned has not executed, and will not execute, any agreement in conflict herewith.

Further, I agree to communicate to ASSIGNEE or its representatives any facts known to me regarding the INTELLECTUAL PROPERTY and will testify in any legal proceeding regarding the INTELLECTUAL PROPERTY, cooperate in every way possible in obtaining evidence in support of rights associated with INTELLECTUAL PROPERTY. I agree to execute all papers for divisional, continuation, substitute, renewal, and reissue applications, execute all necessary assignment papers to cause any and all of the Letters Patent to be issued to ASSIGNEE, make all rightful oaths, and generally do everything possible to aid ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for the INTELLECTUAL PROPERTY worldwide.

I hereby grant the attorney of record 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 and Trademark Office for recordation of this assignment.

LEGAL NAME OF INVENTOR: Benjamin J KEELER

Barragine by.

---0DD1D2A47591450...

DATE: 06-Jan-2023 | 19:06 GMT

This document is directed to the below identified patent document(s)

CASE NUMBER	2022P00071 GB
TITLE	Aircraft Heat Management
DOCUMENT	FILING DATE
NUMBER	

WHEREAS, Rolls-Royce plc, a corporation (hereinafter "ASSIGNEE"), having a place of business at Kings Place, 90 York Way, N1 9FX London, United Kingdom is desirous of acquiring the entire right, title, and interest in and to the above-referenced patent document(s), all priority patent application(s) related to the above-referenced patent document(s), and/or all subject matter disclosed in the abovereferenced patent document(s) and/or the related priority patent application(s) (hereinafter "INTELLECTUAL PROPERTY"), and further in and to any Letters Patent granted from the INTELLECTUAL PROPERTY worldwide:

NOW, THEREFORE, for good and valuable consideration, the sufficiency of which is acknowledged, I hereby sell, assign, and set over to ASSIGNEE, the full and exclusive right to the INTELLECTUAL PROPERTY worldwide (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the application) and the entire right, title, and interest in and to any and all Letters Patent granted on the INTELLECTUAL PROPERTY worldwide and in and to any and all divisionals, reissues, continuations, substitutions, and renewals thereof.

I hereby authorize and request the Patent Office officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of the Letters Patent, when granted, to ASSIGNEE as the assignee of my entire right, title, and interest in and to the same, for the sole use and benefit of ASSIGNEE, its successors and assigns, to the full end of the term for which the Letters Patent are granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made and hereby covenants that I have full right to convey the interest herein assigned, and that the undersigned has not executed, and will not execute, any agreement in conflict herewith.

Further, I agree to communicate to ASSIGNEE or its representatives any facts known to me regarding the INTELLECTUAL PROPERTY and will testify in any legal proceeding regarding the INTELLECTUAL PROPERTY, cooperate in every way possible in obtaining evidence in support of rights associated with INTELLECTUAL PROPERTY. I agree to execute all papers for divisional, continuation, substitute, renewal, and reissue applications, execute all necessary assignment papers to cause any and all of the Letters Patent to be issued to ASSIGNEE, make all rightful oaths, and generally do everything possible to aid ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for the INTELLECTUAL PROPERTY worldwide.

I hereby grant the attorney of record 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 and Trademark Office for recordation of this assignment.

LEGAL NAME OF INVENTOR: Christopher P MADDEN

/ Christopher P Madden /

DATE: 05-Jan-2023 | 12:31 GMT

Attorney Docket No. 224754.40

#### ASSIGNMENT FOR A SINGLE ASSIGNEE

This document is directed to the below identified patent document(s)

CASE NUMBER	2022P00071 GB
TITLE	Aircraft Heat Management
DOCUMENT	FILING DATE
NUMBER	

WHEREAS, Rolls-Royce plc, a corporation (hereinafter "ASSIGNEE"), having a place of business at Kings Place, 90 York Way, N1 9FX London, United Kingdom is desirous of acquiring the entire right, title, and interest in and to the above-referenced patent document(s), all priority patent application(s) related to the above-referenced patent document(s), and/or all subject matter disclosed in the above-referenced patent document(s) and/or the related priority patent application(s) (hereinafter "INTELLECTUAL PROPERTY"), and further in and to any Letters Patent granted from the INTELLECTUAL PROPERTY worldwide;

NOW, THEREFORE, for good and valuable consideration, the sufficiency of which is acknowledged, I hereby sell, assign, and set over to ASSIGNEE, the full and exclusive right to the INTELLECTUAL PROPERTY worldwide (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the application) and the entire right, title, and interest in and to any and all Letters Patent granted on the INTELLECTUAL PROPERTY worldwide and in and to any and all divisionals, reissues, continuations, substitutions, and renewals thereof.

I hereby authorize and request the Patent Office officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of the Letters Patent, when granted, to ASSIGNEE as the assignee of my entire right, title, and interest in and to the same, for the sole use and benefit of ASSIGNEE, its successors and assigns, to the full end of the term for which the Letters Patent are granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made and hereby covenants that I have full right to convey the interest herein assigned, and that the undersigned has not executed, and will not execute, any agreement in conflict herewith.

Further, I agree to communicate to ASSIGNEE or its representatives any facts known to me regarding the INTELLECTUAL PROPERTY and will testify in any legal proceeding regarding the INTELLECTUAL PROPERTY, cooperate in every way possible in obtaining evidence in support of rights associated with INTELLECTUAL PROPERTY. I agree to execute all papers for divisional, continuation, substitute, renewal, and reissue applications, execute all necessary assignment papers to cause any and all of the Letters Patent to be issued to ASSIGNEE, make all rightful oaths, and generally do everything possible to aid ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for the INTELLECTUAL PROPERTY worldwide.

I hereby grant the attorney of record 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 and Trademark Office for recordation of this assignment.

LEGAL NAME OF INVENTOR: Andrea MINELLI

SIGNATURE: / Andrea Minelli /

DATE: 09-Jan-2023 | 09:20 GMT

This document is directed to the below identified patent document(s)

CASE NUMBER	2022P00071 GB
TITLE	Aircraft Heat Management
DOCUMENT	FILING DATE
NUMBER	

WHEREAS, Rolls-Royce plc, a corporation (hereinafter "ASSIGNEE"), having a place of business at Kings Place, 90 York Way, N1 9FX London, United Kingdom is desirous of acquiring the entire right, title, and interest in and to the above-referenced patent document(s), all priority patent application(s) related to the above-referenced patent document(s), and/or all subject matter disclosed in the above-referenced patent document(s) and/or the related priority patent application(s) (hereinafter "INTELLECTUAL PROPERTY"), and further in and to any Letters Patent granted from the INTELLECTUAL PROPERTY worldwide;

NOW, THEREFORE, for good and valuable consideration, the sufficiency of which is acknowledged, I hereby sell, assign, and set over to ASSIGNEE, the full and exclusive right to the INTELLECTUAL PROPERTY worldwide (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the application) and the entire right, title, and interest in and to any and all Letters Patent granted on the INTELLECTUAL PROPERTY worldwide and in and to any and all divisionals, reissues, continuations, substitutions, and renewals thereof.

I hereby authorize and request the Patent Office officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of the Letters Patent, when granted, to ASSIGNEE as the assignee of my entire right, title, and interest in and to the same, for the sole use and benefit of ASSIGNEE, its successors and assigns, to the full end of the term for which the Letters Patent are granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made and hereby covenants that I have full right to convey the interest herein assigned, and that the undersigned has not executed, and will not execute, any agreement in conflict herewith.

Further, I agree to communicate to ASSIGNEE or its representatives any facts known to me regarding the INTELLECTUAL PROPERTY and will testify in any legal proceeding regarding the INTELLECTUAL PROPERTY, cooperate in every way possible in obtaining evidence in support of rights associated with INTELLECTUAL PROPERTY. I agree to execute all papers for divisional, continuation, substitute, renewal, and reissue applications, execute all necessary assignment papers to cause any and all of the Letters Patent to be issued to ASSIGNEE, make all rightful oaths, and generally do everything possible to aid ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for the INTELLECTUAL PROPERTY worldwide.

I hereby grant the attorney of record 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 and Trademark Office for recordation of this assignment.

LEGAL NAME OF INVENTOR: Peter SWANN

SIGNATURE: Peter Swann /

DATE: 05-Jan-2023 | 11:31 GMT

Attorney Docket No. 224754.40

#### ASSIGNMENT FOR A SINGLE ASSIGNEE

# This document is directed to the below identified patent document(s)

CASE NUMBER	2022P00071 GB
TITLE	Aircraft Heat Management
DOCUMENT	FILING DATE
NUMBER	

WHEREAS, Rolls-Royce plc, a corporation (hereinafter "ASSIGNEE"), having a place of business at Kings Place, 90 York Way, N1 9FX London, United Kingdom is desirous of acquiring the entire right, title, and interest in and to the above-referenced patent document(s), all priority patent application(s) related to the above-referenced patent document(s), and/or all subject matter disclosed in the above-referenced patent document(s) and/or the related priority patent application(s) (hereinafter "INTELLECTUAL PROPERTY"), and further in and to any Letters Patent granted from the INTELLECTUAL PROPERTY worldwide;

NOW, THEREFORE, for good and valuable consideration, the sufficiency of which is acknowledged, I hereby sell, assign, and set over to ASSIGNEE, the full and exclusive right to the INTELLECTUAL PROPERTY worldwide (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the application) and the entire right, title, and interest in and to any and all Letters Patent granted on the INTELLECTUAL PROPERTY worldwide and in and to any and all divisionals, reissues, continuations, substitutions, and renewals thereof.

I hereby authorize and request the Patent Office officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of the Letters Patent, when granted, to ASSIGNEE as the assignee of my entire right, title, and interest in and to the same, for the sole use and benefit of ASSIGNEE, its successors and assigns, to the full end of the term for which the Letters Patent are granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made and hereby covenants that I have full right to convey the interest herein assigned, and that the undersigned has not executed, and will not execute, any agreement in conflict herewith.

Further, I agree to communicate to ASSIGNEE or its representatives any facts known to me regarding the INTELLECTUAL PROPERTY and will testify in any legal proceeding regarding the INTELLECTUAL PROPERTY, cooperate in every way possible in obtaining evidence in support of rights associated with INTELLECTUAL PROPERTY. I agree to execute all papers for divisional, continuation, substitute, renewal, and reissue applications, execute all necessary assignment papers to cause any and all of the Letters Patent to be issued to ASSIGNEE, make all rightful oaths, and generally do everything possible to aid ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for the INTELLECTUAL PROPERTY worldwide.

I hereby grant the attorney of record 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 and Trademark Office for recordation of this assignment.

LEGAL NAME OF INVENTOR: Martin K YATES

SIGNATURE: / Martin & Yates /

RECORDED: 06/20/2023

DATE: 09-Jan-2023 | 09:18 GMT

PATENT REEL: 063991 FRAME: 0490