504529017 08/31/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4575723

SUBMISSION TYPE:		NEW ASSIGNMENT	
NATURE OF CONVEYAN	ICE:	ASSIGNMENT	
CONVEYING PARTY DA	ATA		
		Name	Execution Date
PHILIPPE GÉRARD ED	MOND JO	LY	08/11/2017
FRANÇOIS JEAN COMI	N		08/11/2017
LAURENT JABLONSKI			08/11/2017
DAMIEN MERLOT			08/11/2017
JEAN-MARC CLAUDE P	'ERROLL <i>i</i>	ĄZ	08/11/2017
RECEIVING PARTY DA	ТА		
Name:	SAFRAN	I AIRCRAFT ENGINES	
Street Address:	2 BOULE	EVARD DU GÉNÉRAL MARTIAL VALIN	
City:	PARIS		
State/Country: FRANCE			
Postal Code:	75015		
PROPERTY NUMBERS	Total: 1		
	Total: 1	Number	
PROPERTY NUMBERS Property Type Application Number:		Number 5554936	
Property Type	1		
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Property Type Application Number: CORRESPONDENCE D. Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2:	ATA (2 e sent to t provided; 2 Iz 1 S C	5554936 216)579-6073 the e-mail address first; if that is unsu if that is unsuccessful, it will be sent 16-579-1700 cakelj@pearne.com EARNE & GORDON LLP 801 EAST 9TH STREET SUITE 1200 CLEVELAND, OHIO 44114-3108	
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Property Type Application Number: CORRESPONDENCE D. Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 2: Address Line 4: ATTORNEY DOCKET NU	ATA (2 e sent to t provided; 2 Iz 1 S C	216)579-6073 the e-mail address first; if that is unsu if that is unsuccessful, it will be sent 16-579-1700 eakelj@pearne.com PEARNE & GORDON LLP 801 EAST 9TH STREET SUITE 1200 SLEVELAND, OHIO 44114-3108 BRV5-57837 MICHAEL W. GARVEY	

PATENT REEL: 043465 FRAME: 0299

This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 5

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Worldwide Assignment & US Declaration (37 CFR 1.63)

for utility or design application using an application data sheet (37 CFR 1.76)

As a below named inventor, I hereby declare that, I

Inventor Nome	Complete Address
JOLY, Philippe, Gerard, Edmond	23 side des Camagnies, 77180 vand 15 Fran, franço

(Hereinafter referred to as the Assignor) have made an invention entitled:

Title of Invention (in English)

BLISK COMPRISING A HUB HAVING A RECESSED FACE ON WHICH A FILLING MEMBER IS MOUNTED

Title of Invention (in French)

for which an application for Letters Patent has been filed in the following country:

 Country	Filing Date	Seriol Number
 PRAVICE	MAR-03-2015	1521736

The above-identified application(s) was/were made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

AND, WHEREAS,

Corporation Name	Complete Address
SAFRAN AIRCRAFT ENGINES	2 Anniovani du Géniral Mortel Volin 75013 FAMS FEMDE

(Hereinafter referred to as the Assignee(s)) is/are 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 aforementioned applications for Letters Patent on this invention and the Letters Patent to be issued upon these applications;

NOW THEREFORE, be it known that for and in consideration of One EURO (€1.00) and other good and valuable consideration, the receipt and sufficiency of which from the Assignee[s] is hereby acknowledged, by these presents, I, the Assignor, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer and set over unto the Assignee[s], its/their law/ul successors and assigns, my entire right, title, and interest in and to this invention and these applications, and all divisions, and continuations thereof, and all letters Patent that may be granted thereon, and all reissues thereof, and all applications for Letters Patent that may hereafter be filed for this invention in any country and all Letters Patent that may be granted on this invention in any country, and all extensions, renewals, and reissues thereof; and it hereby authorize and request the Continisioners of Patents (or other appropriate official whose duty is to issue patents) of the United States, Canada, and any other country, to issue Letters Patent for this invention to the Assignee[s], its/their successors and assigns, in accordance with the terms of this Assignment;

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

AND, I HEREBY further covenant and agree that I will communicate with the Assignee[s], its/their successors and assigns, any facts known to me respecting this invention, testify in any legal proceedings, 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[s], its/their successors or assigns, execute all divisional, continuation, relistue, and reexamination applications, make all rightful oaths and generally do everything possible to aid the Assignee[s], its/their successors and assigns, to obtain and enforce proper patent protection for this invention in any country, it being understood that, irrespective of whether I am in the employ of the Assignee[s] or its/their affiliates, any expense incident to the performance of the obligations of the present paragraph shall be home by the Assignee[s], its/their successors, and assigns.

This Assignment agreement is effective as of the earliest filing date mentioned above.

AND, (/WE HEREBY acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

IN TESTIMONY WHEREOF, LHAVE SIGNED:

Date	Place	Inventor Name & Signature	Witness Nome & Signoture
 August 11, 2017	Villaroche.	JOLY, Philippe, Gérard, Edmond	TABLONST, lawrout
			Justine

Specory flor, 10522

Worldwide Assignment & US Declaration (37 CFR 1.63) for utility or design application using an application data sheet (37 CFR 1.76)

As a below named inventor, I hereby declare that, I

Inventor Name	Complete Address
COMIN, François, Jean	15 Ken du suistnau, appartement CE2, 77003 MEURIN PRANCE

(Bereinafter referred to as the Assignor) have made an invention entitled:

Title of Invention (in English)

BLISK COMPRISING A HUB HAVING A RECESSED FACE ON WHICH A FILLING MEMBER IS MOUNTED

Title of Invention (in French)

for which an application for Letters Patent has been filed in the following country:

Country	Filling Date	Serial Number
CRANCE	MAR-02-2015	£1847/16

The above identified application(s) was/were made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

AND, WHEREAS,

Complete Address
2 Boolevard du Scinerus Maarius Vacio 75015, PARIS, FRANCE

(Hereinafter referred to as the Assignce(s)) is/are 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 aforementioned applications for Letters Patent on this invention and the Letters Patent to be issued upon these applications;

NOW THEREFORE, be it known that for and in consideration of One EURO (£1.00) and other good and valuable consideration, the receipt and sufficiency of which from the Assignee(s) is hereby acknowledged, by these presents, I, the Assigner, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer and set over unto the Assignee(s), its/their lawful successors and assigns, my entire right, title, and interest in and to this invention and these applications, and all divisions, and continuations thereof, and all Letters Patent that may be granted thereon, and all reissues thereof, and all regists to claim priority on these of such applications, and all applications for Letters Patent that may hereafter be filed for this invention in any country and all Letters Patent that may be granted on this invention in any country and all extensions, renewals, and reissues thereof; and all exters Patent that may be granted on this invention in any country and all extensions, renewals, and reissues thereof; and all extensions and all extensions in easients of the submittee of the submittee and request the Commissioners of Patents (or other appropriate official whose duty is to issue patents) of the United States, Canada, and any other country, to issue Letters Patent for this invention to the Assignee(s), its/their successors and assigns, in accordance with the terms of this Assignment;

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

AND, I HEREBY further covenant and agree that 1 will communicate with the Assignee[s], its/their successors and assigns, any facts known to me respecting this invention, testify in any legal proceedings, 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[s], its/their successors or assigns, execute all divisional, continuation, reissue, and reexamination applications, make all rightful oaths and generally do everything possible to aid the Assignee[s], its/their successors and assigns, to obtain and enforce proper patent protection for this invention in any country, it being understood that, irrespective of whether I am in the employ of the Assignee[s] or its/their affiliates, any expense incident to the performance of the obligations of the present paragraph shall be borne by the Assignee[s], its/their successors, and assigns.

This Assignment agreement is effective as of the earliest filing date mentioned above.

AND, I/WE HEREBY acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

IN TESTIMONY WHEREOF, I HAVE SIGNED:

h	Place	Inventor Name & Signature	Witness Name & Signature
August 11, 2017	Villoroche	COMIN, François, Jean	JABLONSKI, Lawent

PATENT REEL: 043465 FRAME: 0302

Worldwide Assignment & US Declaration (37 CFR 1.63) for utility or design application using an application data sheet (37 CFR 1.76)

As a below named inventor, thereby declare that, t

 Inventor Nome	Complete Address
1800.00000 laurent	274 Paue das irvis mensios 77936 Ridel (13-FRANCE

(Rereinafter referred to as the Assignor) have made an invention entitled:

Title of Invention (in English)

BLISK COMPRISING A HUB HAVING A RECESSED FACE ON WHICH A FILLING MEMBER IS MOUNTED

Title of Invention (in French)

for which an application for Letters Patent has been filed in the following country:

 Country	Filing Date	Serial Number	
 FEARCE	MA8-02-2015	156,1786	

The above-identified application(s) was/were made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

AND, WHEREAS,

Carporation Name	Complete Address
SAFRAN AIRCRAFT ENGINES	2 Boolevard du Général Martial Volm 75035 AARS, FRANCE
{	

(Hereinafter referred to as the Assignee[s]) Is/are 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 aforementioned applications for Letters Patent on this invention and the Letters Patent to be issued upon these applications;

NOW THEREFORE, be it known that for and in consideration of One EURO (£1.00) and other good and valuable consideration, the receipt and sufficiency of which from the Assignee(s) is hereby acknowledged, by these presents. It he Assigner, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer and set over unto the Assignee(s), its/their lawful successors and assigns, my enline right, title, and interest in and to this invention and these applications, and all divisions, and continuations thereof, and all letters Patent that may be granted thereon, and all reissues thereof, and all rights to claim priority on these of such applications, and all applications for Letters Patent that may hereafter be filed for this invention in any country and all letters. Patent that may be granted on this invention in any country, and all extensions, renewals, and reissues thereof; and I hereby authorize and request the Commissioners of Patents (or other appropriate official whose duty is to usue patents) of the United States, Canada, and any other country, to issue Letters Patent for this invention to the Assignee(s), its/their successors and assigns, in accordance with the terms of this Assignment;

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

AND, I HEREBY further covenant and agree that I will communicate with the Assignee[s], its/their successors and assigns, any facts known to me respecting this invention, testify in any legal proceedings, 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[s], its/their successors or assigns, execute all divisional, continuation, reissue, and reexamination applications, make all rightful oaths and generally do everything possible to aid the Assignee[s], its/their successors and assigns, to obtain and enforce proper patent protection for this invention in any country, it being understood that, intespective of whether I am in the employ of the Assignee[s] or its/their atilitates, any expense incident to the performance of the obligations of the present paragraph shall be borne by the Assignee[s], its/their successors, and assigns.

This Assignment agreement is effective as of the earliest filing date mentioned above.

AND, VWE NEILEBY acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

IN TESTIMONY WHEREOF, I HAVE SIGNED:

Dote	Place	inventor Name & Signature	Witness Name & Signature
Angust 11, 2017	Villarache	ABUSHSKI, LUWENN	JOCS, Philippe govard educad

PATENT REEL: 043465 FRAME: 0303

Worldwide Assignment & US Declaration (37 CFR 1.63) for utility or design application using an application data sheet (37 CFR 1.76)

As a below named inventor, I hereby declare that, I

Inventor Nome	Complete Address
MERICIT, Damies	482 rue d'Egrefine 77000 VAUX LE PENIL FRANCE

(Hereinafter referred to as the Assignor) have made an invention entitled:

Title of invention (in English)

BLISK COMPRISING A HUB HAVING A RECESSED FACE ON WHICH A FILLING MEMBER IS MOUNTED

Title of Invention (in French)

for which an application for Letters Patent has been filed in the following country:

C. S. S.	Country	Filing Date	Serial Number
and the second se	FRANCE	MAR-02-2015	1851/36
ſ			}

The above identified application(s) was/were made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

AND, WHEREAS,

Curporation Nume	Complete Address
SAFRAN AIRCRAFT ENGINES	2 Bouleverd du Général Martial Valin 75015 PARIS FRANCE

(Hereinafter referred to as the Assignee[s]) s/are 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 aforementioned applications for Letters Patent on this invention and the Letters Patent to be issued upon these applications;

NOW THEREFORE, be it known that for and in consideration of One EURO (£1.00) and other good and valuable consideration, the receipt and sufficiency of which from the Assignee(s) is hereby acknowledged, by these presents, i, the Assignor, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer and set over unto the Assignee(s), its/their lawful successors and assigns, my entire right, the, and interest in and to this invention and these applications, and all divisions, and continuations thereof, and all cetters Patent that may be granted thereon, and all relissues thereof, and all rights to claim priority on these of such applications, and all applications for Letters Patent that may be granted to this invention in any country and all tetters Patent that may be granted on this invention in any country, and all extensions, renewals, and relistes thereof, and all hereby authorize and request the Commissioners of Patents (or other appropriate official whose duty is to issue patents) of the United States, Canada, and any other country, to issue Letters Patent for this invention to the Assignee(s), its/their successors and assigns, in accordance with the terms of this Assignment:

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

AND. I HEREBY further covenant and agree that I will communicate with the Assignee[s], its/their successors and assigns, any facts known to me respecting this invention, testify in any legal proceedings, 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[s], its/their successors or assigns, execute all divisional, continuation, relissue, and reexamination applications, make all rightful oaths and generally do everything possible to aid the Assignee[s], its/their successors or assigns, execute all divisional, continuation, relissue, and reexamination applications, make all rightful oaths and generally do everything possible to aid the Assignee[s], its/their successors and assigns, to obtain and enforce proper patent protection for this invention in any country. It being understood that, irrespective of whether I am in the employ of the Assignee[s] or its/their affiliates, any expense incident to the performance of the obligations of the present paragraph shall be borne by the Assignee[s], its/their successors, and assigns.

This Assignment agreement is effective as of the earliest filing date mentioned above.

AND, I/WE HEBEBY acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by line or imprisonment of not more than five (S) years, or both.

IN TESTIMONY WHEREOF, I HAVE SIGNED:

-	Date	Place	Inventor Nome & Signoture	Witness Name & Signature
	August 11, 2017	villassihe	MERLOT, Damiers	TACOB, Oaine

PATENT REEL: 043465 FRAME: 0304

Worldwide Assignment & US Declaration (37 CFR 1.63) for utility or design application using an application data sheet (37 CFR 1.76)

As a below named inventor, I hereby declare that, I

Inventor Nome	Complete Address
PERROLLAZ, Jean-Mare, Claude	11. Sue des Courtes FIRIO SCORT STATUE

(Hereinafter referred to as the Assignor) have made an invention entitled:

Title of Invention (in English)

BLISK COMPRISING A HUB HAVING A RECESSED FACE ON WHICH A FILLING MEMBER IS MOUNTED

Title of Invention (in French)

for which an application for Letters Patent has been filed in the following country:

Country	Filing Date	Serial Number
 FRANCE	MAR-02-2015	1557736

The above-identified application(s) was/were made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

AND, WHEREAS,

Complete Address	
2 Boolevard oo Général Marital Valin 2503 FANDS - CRADON	

(Hereinafter referred to as the Assignce]s]) is/are 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 aforementioned applications for Latters Patent on this invention and the Letters Patent to be issued upon these applications;

NOW THEREFORE, be it known that for and in consideration of One EURO (£3.01) and other good and valuable consideration, the receipt and sufficiency of which from the Assignee(s) is hereby acknowledged, by these presents. I, the Assigner, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer and set over unto the Assignee(s), its/their lawful successors and assigns, my entire right, title, and interest in and to this invention and these applications, and all divisions, and continuations thereof, and all letters Patent that may be granted thereon, and all reissues thereof, and all rights to claim priority on these of such applications, and all applications for Letters Patent that may hereafter be filed for this invention in any country and all tetters Patent that may be granted on this invention in any country, and all extensions, renewals, and reissues thereof; and I hereby authorize and request the Commissioners of Patents (or other appropriate official whose duty is to issue patents) of the United States, Canada, and any other country, to issue Letters Patent for this invention to the Assignee(s), its/their successors and assigns, in accordance with the terms of this Assignment;

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

AND, I HEREBY further covenant and agree that I will communicate with the Assignee[s], its/their successors and assigns, any facts known to me respecting this invention, testify in any legal proceedings, 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[s], its/their successors or assigns, execute all divisional, continuation, relissue, and reexamination applications, make all rightful oaths and generally do everything possible to aid the Assignee[s], its/their successors and assigns, to obtain and enforce proper patent protection for this invention in any country, it being understood that, irrespective of whether I am in the employ of the Assignee[s] or its/their affiliates, any expense incident to the performance of the obligations of the present paragraph shall be borne by the Assignee[s], its/their successors, and assigns.

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AND, I/WE HEREBY acknowledge that any willful false statement made in this declaration is numishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (S) years, or both.

IN TESTIMONY WHEREOF, I HAVE SIGNED:

Date	Place	Inventor Nome & Signature	Witness Name & Signature
August 11, 2017	villaroche	PERROLLAZ Jean-Marc, Claude	JABLONEN, LAWRENT

PATENT REEL: 043465 FRAME: 0305

RECORDED: 08/31/2017