503911418 07/12/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3958070

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

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------|----------------|
| JUERGEN SILVANUS | 05/12/2016 |
| HEIKO FIETZEK | 05/31/2016 |

RECEIVING PARTY DATA

| Name: | AIRBUS DEFENCE AND SPACE GMBH | |
|-----------------|-------------------------------|--|
| Street Address: | WILLY-MESSERSCHMITT-STRASSE 1 | |
| City: | ОТ | |
| State/Country: | GERMANY | |
| Postal Code: | 85521 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15140693 |

CORRESPONDENCE DATA

Fax Number: (919)419-0383

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.

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| ATTORNEY DOCKET NUMBER: 1406/800/49 | | |
|-------------------------------------|-------------------|--|
| NAME OF SUBMITTER: | GAYLE W. CHANEY | |
| SIGNATURE: | /gayle w. chaney/ | |
| DATE SIGNED: | 07/12/2016 | |

Total Attachments: 2

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PATENT 503911418 REEL: 039135 FRAME: 0475

COMBINED DECLARATION AND ASSIGNMENT FOR UTILITY OR DESIGN APPLICATION (37 CFR 1.53) USING AN APPLICATION DATA SHEET

| | *************************************** | ************************************** | |
|---|---|--|--|
| Attorney Docket No. | 1406/800/49 | Airbus Reference No. | |
| Title of the Invention ("Invention") | FRICTION STIR WELDING | OF THERMOPLASTICS | |
| Legal Name of Inventor ("inventor") | Juergen SILVANUS | | |
| Assignee ("Assignee") | Airbus Defence and Space GmbH, incorporated or otherwise formed in Germany, and having a place of business at Willy-Messerschmitt-Str. 1, 85521, Ottobrunn, Germany | | |
| | DEC | LARATION | |
| As named inventor, I hereby deci | are that: | | |
| 2000000 | | nal Application Number 15/140,693 | |
| that the above-identified Applicati | ion is/was made or authorized to b | e made by me; | |
| that I believe I am the original inv | entor or an original joint inventor o | f a claimed invention in the above-identified Application; and | |
| that I hereby acknowledge that a imprisonment of not more than fit | | his declaration is punishable under 18 U.S.C. 1001 by fine or | |
| | ASS | <u>SIGNMENT</u> | |
| | | e Assignee is desirous of acquiring, or has acquired and is desirous of interest in the above-identified Application. | |
| NOW, THEREFORE, for good and valuable consideration the receipt of which is hereby acknowledged. I agree to assign, and hereby do assign, to Assignee my entire right, title and interest in and to the Application in the United States of America and all other countries, including any and ell inventions, discoveries and other subject matter described therein, any divisional, continuation, continuation-in-part, conversion, non-provisional, substitute, reissue, re-examination certificate following Inter Partes Review, certificate following Post Grant Review, all other applications claiming priority to or benefit of the Application pursuant to any law or treaty, and any patent issuing from any of the foregoing. I agree to assign, and hereby do assign, to Assignee the right to claim such priority or benefit. I have not previously conveyed, nor am I aware of an obligation to convey, my rights in the Application to a third party. I hereby authorize the U.S. Patent and Trademark Office, and any other governmental agency in the world, to issue to Assignee all patents resulting from the Application and to record Assignee's ownership thereof. At Assignee's reasonable request I agree, without further remuneration, to execute and deliver documents prepared at Assignee's expense and to provide other cooperation, such as testimony, as may be reasonably required to evidence or protect Assignee's rights in the Application. Assignee may assign or transfer all or part of its rights set forth herein in its sole discretion. I agree that the Assignee may affix its signature to this document as well as any other indicia of its acceptance of the provisions hereof. If any provision herein is unenforceable, the requirements of the provision shall remain to the full extent permissible by law and the offending portions thereof shall be deemed replaced, to the extent possible, with a provision most closely reflecting the purpose of the offending provision. | | | |
| 117 21 119 1 | CONTRACTOR OF THE STATE OF THE | The state of the s | |
| 12th May (Date) | | Juergen SILVANUS | |
| « (nais) | | Jueigen Silvanyoo | |
| WARNING | | | |
| According to 37 C.F.R. 1.63 (c), "[a the application, including claims ar |) person may not execute an oath or ad is aware of the duty to disclose to | r declaration unless the person has reviewed and understands the contents of the Office all information known to be material to patentability as defined in | |

An Application Data Sheet (PTO/SB/14 or Equivalent) naming the entire inventiveness entity must accompany this form unless previously submitted.

COMBINED DECLARATION AND ASSIGNMENT FOR UTILITY OR DESIGN APPLICATION (37 CFR 1.63) USING AN APPLICATION DATA SHEET

| ************************************** | 2014 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | |
|---|---|--|
| Attorney Docket No. | 1406/800/49 Airbus Reference No. | |
| Title of the invention ("Invention") | FRICTION STIR WELDING OF THERMOPLASTICS | |
| Legal Name of Inventor ("Inventor") | Heiko FIETZEK | |
| Assignee ("Assignee") | Airbus Defence and Space GmbH, incorporated or otherwise formed in Germany, and having a place of business at Willy-Messerschmitt-Str. 1, 85521, Ottobrunn, Germany | |
| | DECLARATION | |
| As named inventor, I hereby deci | lare that: | |
| This declaration is directed to: The attached App OR | Reation | |
| | Discation Number or PCT International Application Number 15/140,693 28, 2016 | |
| that the above-identified Applicati | ion is/was made or authorized to be made by me; | |
| that I believe I am the original inv | rentor or an original joint inventor of a claimed invention in the above-identified Application; and | |
| that I 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. | | |
| | ASSIGNMENT | |
| IN ADDITION TO MAKING THIS DECLARATION, WHEREAS the Assignee is desirous of acquiring, or has acquired and is desirous of memorializing its acquisition further herein, my entire right, title and interest in the above-identified Application. | | |
| NOW, THEREFORE, for good and valuable consideration the receipt of which is hereby acknowledged. I agree to assign, and hereby do assign, to Assignee my entire right, title and interest in and to the Application in the United States of America and all other countries, including any and all inventions, discoveries and other subject matter described therein, any divisional, continuation, continuation-in-part, conversion, non-provisional, substitute, reissue, re-examination certificate following Inter Partes Review, certificate following Post Grant Review, all other applications claiming priority to or benefit of the Application pursuant to any law or treaty, and any patent issuing from any of the foregoing. I agree to assign, and hereby do assign, to Assignee the right to claim such priority or benefit. I have not previously conveyed, nor am I aware of an obligation to convey, my rights in the Application to a third party. I hereby authorize the U.S. Patent and Trademark Office, and any other governmental agency in the world, to issue to Assignee all patents resulting from the Application and to record Assignee's ownership thereof. At Assignee's reasonable request I agree, without further remuneration, to execute and deliver documents prepared at Assignee's expense and to provide other cooperation, such as testimony, as may be reasonably required to evidence or protect Assignee's rights in the Application. Assignee may assign or transfer all or part of its rights set forth herein in its sole discretion. I agree that the Assignee may affix its signature to this document as well as any other indicia of its acceptance of the provisions hereof. If any provision herein is unenforceable, the requirements of the provision shall remain to the full extent permissible by law and the offending portions thereof shall be deemed replaced, to the extent possible, with a provision most closely reflecting the purpose of the offending provision. | | |
| 34 05 20 (Date) | 916 TAIN Heiko FIETZEK | |
| WARNING | | |
| According to 37 C.F.R. 1.63 (c), "[a] the application, including claims and 1.56." | person may not execute an oath or declaration unless the person has reviewed and understands the contents of d is aware of the duty to disclose to the Office all information known to be material to patentability as defined in | |

An Application Data Sheet (PTO/SB/14 or Equivalent) naming the entire inventiveness entity must accompany this form unless previously submitted.

PATENT REEL: 039135 FRAME: 0477

RECORDED: 07/12/2016