

07-22-1999

SHEET

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office



To the Honorable Commissioner of P.

101098027

ached original documents or copy thereof.

1. Name of conveying party(ies):

THOMAS E. STRASSER
STEVEN D. ATMUR

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other

Execution Date: November 10, 1997

2. Name and address of receiving party(ies):

Name: NORTHROP GRUMMAN CORPORATION

Internal Address:

Street Address: 1840 Century Park East

City: Los Angeles State: CA Zip: 90067-2199

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

November 10, 1997

A. Patent Application No.(s)

09 351574

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: NORTHROP GRUMMAN CORPORATION

Internal Address: Terry Anderson

Street Address: 1840 Century Park East

City: Los Angeles State: California Zip: 90067-2199

6. Total number of applications and patents involved:

1

7. Total fee (37 CFR 3.41):.....\$40.00

- ☐ Enclosed
☒ Authorized to be charged to deposit account

8. Charge any excess or credit any refund to deposit account number:

14-1325
(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Richard T. Lyon Reg. No. 37,385
Name of Person Signing

Signature

Date

07/21/1999 DNGUYEN 00000400 141325 09351574

01 FC:581 40.00 CH

OMB No. 0651-0011

Total number of pages comprising cover sheet:

1

ASSIGNMENT

WHEREAS, I, STEVEN DONALD ATMUR, hereinafter referred to as Assignor, together with THOMAS EDWARD STRASSER have jointly invented certain new and useful improvements in INTEGRATED FIBER REINFORCED CERAMIC MATRIX COMPOSITE BRAKE PAD AND BACK PLATE described in an application for United States Letters Patent, executed by me on the date as stated below;

WHEREAS, Northrop Grumman Corporation, a Delaware corporation, having its principal place of business at 1840 Century Park East, Los Angeles, California 90067, hereinafter referred to as Assignee, is desirous of acquiring the entire right, title and interest in, to and under said improvements and said application:

NOW, THEREFORE, in consideration of Assignor's obligations to Northrop Grumman, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, Assignor's entire right, title and interest in, to and under said improvements, and said application and all divisions, renewals, continuations, and continuations-in-part thereof, and all United States Letters Patent which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, including the full right to claim for any such application the priority benefits of the International Convention for the Protection of Industrial Property and other priority-conferring treaties, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, divisions, continuations, continuations-in-part, renewals and reissues thereof; and Assignor hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to said Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

Assignor hereby acknowledges that at the time of making the improvements herein identified, Assignor was under an obligation to assign to Assignee, Assignor's entire right, title and interest in, to and under said improvements;

Assignor hereby covenants that Assignor has full right to convey the interest herein assigned, and that Assignor has not executed, and will not execute, any agreement in conflict herewith and that Assignee, Northrop Corporation, its successors, assigns and other legal representatives shall have the right to hold and enjoy for its and their own use and benefit, to the end of the term or terms for which such Letters Patent shall or may be granted, reissued or extended as fully and completely as the same might or could have been held and enjoyed by Assignor had this assignment not been made.

Assignor hereby further covenants and agrees to communicate to Assignee, its successors, legal representatives and assigns, any and all facts known to Assignor respecting said improvements; to promptly provide Assignor with all documents relating to said improvements, said invention, and said Letters Patent as may be known or accessible to Assignor; to testify as to the same in any interference or litigation or other legal proceedings related thereto; to sign all lawful papers, execute all extensions, continuations, continuations-in-part, divisional and reissue applications; and to make all rightful oaths or declarations and generally do everything possible to aid Assignee, its successors, legal representatives and assigns in obtaining and enforcing all the rights herein conveyed for said improvements in all countries without further compensation, but at the expense of Assignee, its successors, legal representatives and assigns.

IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this
10th day of November, 19 97, and has executed the referenced patent
application on the 10th day of November, 19 97.


STEVEN DONALD ATMUR,

Assignor

STATE OF California)
COUNTY OF Los Angeles) ss

On November 10, 1997 before me, Kathy J. Cassatt, Notary Public,
personally appeared Steven Donald Atmur, personally known to
me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to this instrument
and acknowledged to me that he/~~she~~ executed the same in his/~~her~~ authorized capacity, and that by his/~~her~~ signature
on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal

Signature Kathy J. Cassatt

(Seal)



ASSIGNMENT

WHEREAS, I, THOMAS EDWARD STRASSER, hereinafter referred to as Assignor, together with STEVEN DONALD ATMUR have jointly invented certain new and useful improvements in INTEGRATED FIBER REINFORCED CERAMIC MATRIX COMPOSITE BRAKE PAD AND BACK PLATE described in an application for United States Letters Patent, executed by me on the date as stated below;

WHEREAS, Northrop Grumman Corporation, a Delaware corporation, having its principal place of business at 1840 Century Park East, Los Angeles, California 90067, hereinafter referred to as Assignee, is desirous of acquiring the entire right, title and interest in, to and under said improvements and said application:

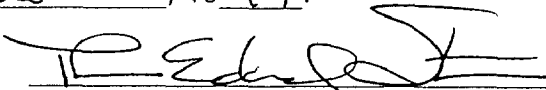
NOW, THEREFORE, in consideration of Assignor's obligations to Northrop Grumman, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, Assignor's entire right, title and interest in, to and under said improvements, and said application and all divisions, renewals, continuations, and continuations-in-part thereof, and all United States Letters Patent which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, including the full right to claim for any such application the priority benefits of the International Convention for the Protection of Industrial Property and other priority-conferring treaties, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, divisions, continuations, continuations-in-part, renewals and reissues thereof; and Assignor hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to said Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

Assignor hereby acknowledges that at the time of making the improvements herein identified, Assignor was under an obligation to assign to Assignee, Assignor's entire right, title and interest in, to and under said improvements;

Assignor hereby covenants that Assignor has full right to convey the interest herein assigned, and that Assignor has not executed, and will not execute, any agreement in conflict herewith and that Assignee, Northrop Corporation, its successors, assigns and other legal representatives shall have the right to hold and enjoy for its and their own use and benefit, to the end of the term or terms for which such Letters Patent shall or may be granted, reissued or extended as fully and completely as the same might or could have been held and enjoyed by Assignor had this assignment not been made.

Assignor hereby further covenants and agrees to communicate to Assignee, its successors, legal representatives and assigns, any and all facts known to Assignor respecting said improvements; to promptly provide Assignor with all documents relating to said improvements, said invention, and said Letters Patent as may be known or accessible to Assignor; to testify as to the same in any interference or litigation or other legal proceedings related thereto; to sign all lawful papers, execute all extensions, continuations, continuations-in-part, divisional and reissue applications; and to make all rightful oaths or declarations and generally do everything possible to aid Assignee, its successors, legal representatives and assigns in obtaining and enforcing all the rights herein conveyed for said improvements in all countries without further compensation, but at the expense of Assignee, its successors, legal representatives and assigns.

IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this 10th day of November, 1997, and has executed the referenced patent application on the 10th day of November, 1997.


THOMAS EDWARD STRASSER, Assignor

STATE OF California,
COUNTY OF Los Angeles) ss

On November 10, 1997 before me, Kathy J. Cassatt, Notary Public, personally appeared Thomas Edward Strasser, personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to this instrument and acknowledged to me that he/~~she~~ executed the same in his/~~her~~ authorized capacity, and that by his/~~her~~ signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal

Signature Kathy J. Cassatt

(Seal)

