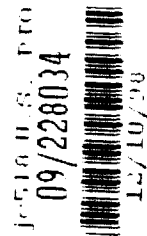


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RECORDATION COVER SHEET . ENTS



Commissioner of Patents and Trademarks
Washington, D.C. 20231

Attention: Assignment Division

Please record the attached original documents or copy thereof.

- (1) **Conveying Party(ies):** Charles Cornelius, Richard Counts, Neill Myers, Jeffrey Lackey, Warren Peters, Michael Shadoan, David Sparks and Timothy Lawrence
- (2) **Receiving Party(ies):** National Aeronautics and Space Administration
Washington, D.C. 20546
- (3) **Nature of Conveyance:** Assignment
Execution Date: December 9, 1998
- (4) **Application Number:** NASA Case No. MFS-31138-1
Application Title: Rocket Engine Thrust Chamber Assembly

This document is being filed together with a new patent application for letters patent. The execution date of the application is: December 9, 1998.

- (5) **Name and address of party to whom correspondence concerning document should be mailed:**

National Aeronautics and Space Administration
Marshall Space Flight Center
Attn: CC01/Robert L. Broad, Jr.
Marshall Space Flight Center, AL 35812

- (6) **Total number of applications involved:** One
- (7) **Total fee (37 CFR 3.41):** \$40.00 ^E Authorized to be charged to deposit account.
- (8) **Deposit account number:** 14-0116

- (9) 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. This cover sheet consists of one page.

Respectfully,

Robert L. Broad, Jr.,
Registration No. 18 757

12/9/98
(Date)

Enclosure(s): NASA FORM 430
ADDITIONAL COPY OF THIS FORM

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on the date of signature below.

Date: 12/10/98 SIGNATURE: Lisa R. Hughes

PATENT

REEL: 9701 FRAME: 0121

(01/20/1999 JMWATKINS 00000058 140116 09228034)
01 FC:581 40.00 CH



ASSIGNMENT AND AGREEMENT

National Aeronautics and
Space Administration

Title of Invention: Rocket Engine Thrust Chamber Assembly

Inventor(s): Charles S. Cornelius, Richard H. Counts, W. Neill Myers, Jeffrey D. Lackey, Warren Peter,
Michael D. Shadoan and David L. Sparks and Timothy Lawrence

NASA Case No.: MFS-31138-1 Application No. _____ Filing Date* _____

WHEREAS, the parties to this Assignment and Agreement are the undersigned inventor(s) and the United States Government (hereafter Government), as represented by the Administrator of the National Aeronautics and Space Administration;

WHEREAS, the making of this Assignment and Agreement is in accordance with 37 CFR Part 101; and

WHEREAS, the undersigned inventor(s) has (have) executed, on the date(s) indicated below, an application for a United States Patent on the above-entitled invention;

NOW THEREFORE, in consideration of employment by the Government, the undersigned hereby:

1. Assign to the Government my (our) full and exclusive right in and to said invention within the United States of America, its territories and possessions, and my (our) entire right, title and interest in and to said application, and any corresponding continuation or divisional application(s), and any patent(s) that may issue therefrom.

2. Agree to grant to the Government my (our) full and exclusive foreign rights in and to said invention, in accordance with 37 CFR 501.9(d), including rights of priority under the International Convention of Paris (1883), as amended. If the Government chooses not to file an application in any foreign country I (we) may request rights in that country, in accordance with 37 CFR 501.9(d), and such rights will be subject to the reservation to the Government of a nonexclusive, irrevocable, royalty-free license in the invention with power to grant licenses for all governmental purposes. The terms of such reservation will appear, where practicable, in any foreign patent which may issue on such invention.

3. Agree, at the expense of the Government, (a) to execute any document for, (b) to deliver any requested information to, and (c) to cooperate in any manner with the Government in order to allow the Government to protect any interest transferred by this Assignment and Agreement.

* 4. Authorize and request the attorneys of record in the application to insert the application number and filing date above when required.

Charles S. Cornelius 12/9/98 _____
(Signature of Inventor) (Date) (Date Application Executed)
Charles S. Cornelius 2020 Stapp Drive, Huntsville, AL 35811
(Inventor's Typed Name) (Post Office Address - Including Country)

Richard H. Counts 12/9/98 _____
(Signature of Inventor) (Date) (Date Application Executed)
Richard H. Counts 1737 Aim Drive, Huntsville, AL 35811
(Inventor's Typed Name) (Post Office Address - Including Country)

W. Neill Myers 12/9/98 _____
(Signature of Inventor) (Date) (Date Application Executed)
W. Neill Myers 13000 Astalot Drive, Huntsville, AL 35803
(Inventor's Typed Name) (Post Office Address - Including Country)

CERTIFICATE OF MAILING

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Date: 12/10/98 **PATENT** R. Hughes
REEL: 9701 FRAME: 0122



ASSIGNMENT AND AGREEMENT

National Aeronautics and
Space Administration

Title of Invention Rocket Engine Thrust Chamber Assembly

Inventor(s): Charles S. Cornelius, Richard H. Counts, W. Neill Myers, Jeffrey D. Lackey, Warren Peters,
Michael D. Shadoan and David L. Sparks and Timothy W. Lawrence

NASA Case No.: MFS-31138-1 Application No. #: _____ Filing Date* _____

WHEREAS, the parties to this Assignment and Agreement are the undersigned inventor(s) and the United States Government (hereafter Government), as represented by the Administrator of the National Aeronautics and Space Administration;

WHEREAS, the making of this Assignment and Agreement is in accordance with 37 CFR Part 501; and

WHEREAS, the undersigned inventor(s) has (have) executed, on the date(s) indicated below, an application for a United States Patent on the above-entitled invention;

NOW THEREFORE, in consideration of employment by the Government, the undersigned hereby:

1. Assign to the Government my (our) full and exclusive right in and to said invention within the United States of America, its territories and possessions, and my (our) entire right, title and interest in and to said application, and any corresponding continuation or divisional application(s), and any patent(s) that may issue therefrom.

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*4. Authorize and request the attorneys of record in the application to insert the application number and filing date above when required.

Jeffrey D. Lackey _____ 12/19/98 _____
(Signature of Inventor) (Date) (Date Application Executed)
Jeffrey D. Lackey 907 County Road 1843, Arab, AL 35016
(Inventor's Typed Name) (Post Office Address - Including Country)

Warren Peters _____ 12/19/98 _____
(Signature of Inventor) (Date) (Date Application Executed)
Warren Peters 104 Elton Drive, Meridianville, AL 35759
(Inventor's Typed Name) (Post Office Address - Including Country)

Michael D. Shadoan _____ 12/19/98 _____
(Signature of Inventor) (Date) (Date Application Executed)
Michael D. Shadoan 112 Tumbleweed Drive, Madison, AL 35758
(Inventor's Typed Name) (Post Office Address - Including Country)

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Date: 12/10/98 SIGNATURE: Patent
REEL: 9701 FRAME: 0123



ASSIGNMENT AND AGREEMENT

National Aeronautics and Space Administration

Title of Invention: Rocket Engine Thrust Chamber Assembly

Inventor(s): Charles S. Cornelius, Richard H. Counts, W. Neill Myers, Jeffrey D. Lackey, Warren Peters, Michael D. Shadoan and David L. Sparks and Timothy W. Lawrence

NASA Case No.: MFS-31138-1 Application No.* Filing Date*

WHEREAS, the parties to this Assignment and Agreement are the undersigned inventor(s) and the United States Government (hereafter Government), as represented by the Administrator of the National Aeronautics and Space Administration;

WHEREAS, the making of this Assignment and Agreement is in accordance with 37 CFR Part 501 and

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NOW THEREFORE, in consideration of employment by the Government, the undersigned hereby:

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2. Agree to grant to the Government my (our) full and exclusive foreign rights in and to said invention, in accordance with 37 CFR 501.9(d), including rights of priority under the International Convention of Paris (1883), as amended. If the Government chooses not to file an application in any foreign country, I (we) may request rights in that country, in accordance with 37 CFR 501.9(d), and such rights will be subject to the reservation to the Government of a nonexclusive, irrevocable, royalty-free license in the invention with power to grant licenses for all governmental purposes. The terms of such reservation will appear, where practicable, in any foreign patent which may issue on such invention.

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*4. Authorize and request the attorneys of record in the application to insert the application number and filing date above when required.

Signature of Inventor: David L. Sparks Date: 12/19/98 Date Application Executed:
David L. Sparks 14014 Astrod Drive, Huntsville, AL 35803
(Inventor's Typed Name) (Post Office Address - Including Country)

Signature of Inventor: Timothy W. Lawrence Date: 12/19/98 Date Application Executed:
Timothy W. Lawrence 106 Lindell Drive, Madison, AL 35758
(Inventor's Typed Name) (Post Office Address - Including Country)

(Signature of Inventor) (Date) (Date Application Executed)
(Inventor's Typed Name) (Post Office Address - Including Country)

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Date: 12/10/98 SIGNATURE: [Signature]