

07-24-2000



NIP-173

PATENTS ONLY (ref OG 7/28/92

101411072

*WPS 6.16.00* To the Honorable Commissioner of Patents and Trademarks:  
Please record the attached original document or copy thereof.

1. Name of Party(ies) conveying an interest: Ryo AKIYAMA,  
Manabu MATSUMOTO,  
Shinya MARUSHIMA.
2. Name and Address of Party(ies) receiving an interest: HITACHI, LTD.  
6, Kanda Surugadai 4-chome  
Chiyoda-ku, Tokyo, 101-8010 JAPAN
3. Description of the interest conveyed: Assignment
4. Application number(s) or patent number(s).  
Additional sheet attached? XXX Yes XXX No  
If this document is being filed together with a new application,  
the execution date of the application is: DATE
- A. Patent Application No.(s) 09/506,811  
B. Patent No.(s)
5. Name and address of party to whom correspondence concerning document should be mailed:  
MATTINGLY, STANGER & MALUR, P.C.  
104 East Hume Avenue  
Alexandria, Virginia 22301
6. Number of applications and patents involved: One
7. Amount of fee enclosed or authorized to be charged: \$40.00
8. The Commissioner is hereby authorized to charge Deposit Account No. 50-1417 if no check is attached.

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9. Execution date of attached document: May 9, 2000
10. To the best of my knowledge and belief, I declare under penalty of perjury under the laws of the United States of America that the foregoing information is true and correct and that any attached copy is a true copy of the original document.

07/21/2000 MTHAI1 00000198 09506811

01 FC:581

Gene W. Stockman

Name of Person Signing

40.00 OP

*Gene W. Stockman*  
Signature

June 16, 2000

Date

Total number of pages being submitted: 1

PATENT  
REEL: 010926 FRAME: 0043

# ASSIGNMENT

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to the undersigned by

## **ASSIGNEE**

Hitachi, Ltd.

whose address is 6, Kanda Surugadai 4-chome, Chiyoda-ku, Tokyo 101-8010, Japan  
a corporation of (if a corporation) Japan

receipt of which is hereby acknowledged, the undersigned hereby warrants title to, and sell and assign to said assignee, its' successors and assigns, all right, title and interest, in and for the U. S. A. and all foreign countries, including all rights of priority, in and to the invention entitled

**TITLE** TURBINE ROTOR, COOLING METHOD OF TURBINE BLADES OF THE ROTOR AND  
GAS TURBINE WITH THE ROTOR

invented by us/me and described in the application for U. S. Letters Patent therefor identified as:

(x) Serial No. 09/506,811, filed February 18, 2000; or

( ) executed on even date herewith; or

( ) executed on \_\_\_\_\_,

and all United States and foreign Letters Patent which may be granted therefor, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said assignee, its successors, assigns or other legal representatives, to the full end of terms for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by us/me if this assignment and sale had not been made;

And we/I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of said above-named application or in the preparation and prosecution of any continuing, continuation in-part, substitute, divisional, renewal, reexamination or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And we/I do hereby authorize and request the Commissioner of Patents and Trademarks, or equivalent, to issue said Letters Patent to said assignee, and Thomas E. Beall, Jeffrey M. Ketchum, or John R. Mattingly, 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 document.

Signed and witnessed this 9th day of May, 19 2000

Signature Ryo Akiyama  
Name Ryo Akiyama

Signature Shinya Marushima  
Name Shinya Marushima

Signature Manabu Matsumoto  
Name Manabu Matsumoto

Signature \_\_\_\_\_  
Name \_\_\_\_\_

Signature \_\_\_\_\_  
Name \_\_\_\_\_

Signature \_\_\_\_\_  
Name \_\_\_\_\_

Signature \_\_\_\_\_  
Name \_\_\_\_\_

Signature \_\_\_\_\_  
Name \_\_\_\_\_

Signature of Witness Mari Yamagata  
Name of Witness Mari Yamagata  
(SEAL)