Atty Docket No.:

243525US0PCT

FORM PTO-1595 1-31-92





S. DEPARTMENT OF COMMERCE Patent and Trademark Office

To the Director of the United States Patent and Trademark Office. Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

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

Taiji TORIGOE Hideaki KANEKO MITSUBISHI HEAVY INDUSTRIES, LTD. Kazutaka MORI Address: 16-5, Konan 2-chome, Minato-ku, Tokyo 108-Ikuo OKADA 8215, Japan Sunao AOKI Kouji TAKAHASHI Minoru OHARA 05-05-2004 Takehiko HIRATA Additional name(s) of conveying party(ies) attached?

Yes No 3. Nature of Conveyance: 102737640 Assignment ☐ Merger ☐ Change of Name ☐ Security Agreement ☐ Other Additional name(s) and address(es) attached?

Yes No Execution Date: 10/01/2003 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: B. Patent No.(s) A. Patent Application No.(s) 10/478,690 Additional numbers attached?

Yes No 5. Name and address of party to whom correspondence 6. Total applications and patents involved: 1 concerning document should be mailed: 7. Total fee (37 CFR 3.41): \$40.00 Customer Number Enclosed ☐ Authorized to be charged to deposit account Tel. (703) 413-3000 8. Deposit account number: 15-0030 Fax. (703) 413-2220 (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. Norman F. Oblon Name of Person Signing Surinder Sachar Registration Number: 24,618 Registration No. 34,423 Total number of pages including this cover sheet: 3 Do not detach this portion

Mail documents to be recorded with required cover sheet information to:

Director of the United States Patent and Trademark Office

Mail Stop Assignment Recordation Services

Alexandria, Virginia. 22313

04/30/2004 SSESHE1 01 FC:8021

00000004 10478690

40.00 OP

PATENT

REEL: 015283 FRAME: 0437

Assignment of Application

Page 1 of 2

WHEREAS, I (WE)	Taiji TORIGOE, Kazutaka I	MORI, Ik	uo OKADA, Su	nao A	OKI, Kouji	TAKAHASH	I,
	Minoru OHARA and Hidea	ıki KANI	EKO, their reside	nce a	ddress are al	l Takasago-sh	i,
	Hyogo-ken, Japan.						
	Takehiko HIRATA, his resid	dence add	lress is Yokohan	na-shi	i, Kanagawa-	ken, Japan	
			-				
have invented certain	new and useful improvements in	THER	MAL BARRIER	R CO	ATING MAT	, respec ΓERIAL, ME	THOD
	AS TURBINE APPLYING SAII						<u>r</u>
	on for Letters Patent was execute		October			LICIAL	
(Application No. 1	0/478,690	_, filed _	December	8,	2003		_), and
WHEREAS,	MITSUBISH	I HEAV	Y INDUSTRIES	, LTI) .		
(hereinafter referred to	o as "ASSIGNEE") having a plac	ce of busi	ness at:				
16	-5, Konan 2-chome, Minato-ku, T	Γokvo 10	8-8215. Japan				
	ng the entire right, title and inter	_			lin and to an	vr I attana Data	

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

10/01

PATENT REEL: 015283 FRAME: 0438 Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, P.C. of Fourth Floor, 1755 Jefferson Davis Highway, Arlington, Virginia 22202 the power to insert on this assignment any further identification, including the application number and filing date, 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.

Date:	October 1,	2003	Daiji Torigol
Date:	October 1,	2003	(Signature of Inventor) Taiji TORIGOF Kayutaka Mari
Date:	October 1,	2003	(Signature of Inventor) Kazutaka MORI Akuo O Kada
Date:	October 1,	2003	(Signature of Inventor) Ikuo OKADA
Date:	October 1,	2003	(Signature of Inventor) Sunao AOKI
Date:	October 1,	2003	(Signature of Inventor) Kouji TAKAHASHI Minoru Ohaa
Date:	October 1,	2003	(Signature of Inventor) Minoru OHARA Takehiko Hirata
Date:	October 1,	2003	(Signature of Inventor) Takehiko HIRATA
			(Signature of Inventor) Hideaki KANEKO

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C.

ATTORNEYS AT LAW

1940 Duke Street Alexandria, Virginia 22314

10/01

RECORDED: 04/29/2004

PATENT REEL: 015283 FRAME: 0439