## 7 10581 140 JC09 Rec'd PCT/P10 2543885

OMB No. 0651-0027 (exp. 6/30/2005) 05 - 22 -	- 2006 United States Patent and Trademark Office
To the Director of the U.S. Patent a 10324	1916 uments or the new address(es) below.
Name of conveying party(ies):	2. Name and address of receiving party(ies)
Yasuharu YAMAMOTO (09/21/2005), Toshiyuki OSADA (09/21/2005), Takafumi YOSHIDA (09/21/2005),  Additional name(s) of conveying party(ies) attached?	Name: Mitsubishi Heavy Industries, Ltd.  Internal Address:  Street Address:
3. Nature of conveyance/Execution Date(s):	
Execution Date(s): in parentheses after inventor name  X Assignment Merger Change of Name  Security Agreement Joint Research Agreement  Government Interest Assignment  Executive Order 9424, Confirmatory License  Other	16-5, Konan 2-chome, Minato-ku Tokyo 108-8215 JAPAN  City: State: Country: Additional name(s) & address(es) attached:  Yes X No
A. Patent Application No.(s)  NEW	his document is being filed together with a new application.  B. Patent No.(s)  10/55+388  Yes X No
Additional numbers attached?	Yes X No
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:
Name: Charles Gorenstein BIRCH, STEWART, KOLASCH & BIRCH, LLP Internal Address: Atty. Dkt.: 2936-0252PUS1 Street Address: 8110 Gatehouse Road Suite 100 East P.O. Box 747	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00  Authorized to be charged by credit card  Authorized to be charged to deposit account  X Enclosed  None required (government interest not affecting title)
City: Falls Church	8. Payment Information
State: VA Zip: 22040-0747	a. Credit Card Last 4 Numbers
Phone Number: (703) 205-8000	Expiration Date
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Email Address: mailroom@bskb.com	Authorized User Name
9. Signature Signature Charles Gorenstein - 29,271 Name of Person Signing	October 25, 2005  Date  Total number of pages including cover sheet, attachments, and documents:

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Form PTO-1595	RECOR	DATION FORM COVER SHEET (continued)	
Additional Conve	ying Party(ies)/Exec	cution Date(s) (1. Continued):	
Takaaki KAIKOGI (0	9/21/2005), and Masaha	aru MINAM! (09/21/2005)	
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Additional Applica	ations and/or Patents	s (4. Continued):	
Additional Patent Applicati 4A. Continued:	ion Numbers	Additional Patent Numbers 4B. Continued:	
	Additional numbers	attached? Yes No	

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Docket No.: 2936-0252PUS1

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## **ASSIGNMENT**

	Application No. NEW		Filed <u>10-25-05</u>	
nsert Name(s) f Inventor(s)	***(Given	Name FAMILY NAME (ALL CA	PS))***	
	WHEREAS,	Yasuharu YAMAMOTO	Toshiyuki OSADA	
		Takaaki KAIKOGI		
	(hereinafter designated as the	undersigned) has (have) invented certa	ain new and useful improvements in	
nsert Title f Invention	<u> </u>	PUMP		
		Letters Patent of the United States se of a provisional application).	of America has been executed by the	
nsert Date f Signing of Application	on <u>Septe</u>	mber 21, 2005	;	anc
nsert Name f Assignee	WHEREAS,	MITSUBISHI HEAVY	INDUSTRIES, LTD.	
nsert Address f Assignee	of	16-5, Konan 2-chome, Minato-Ki	u, Tokyo 108-8215 Japan	
CHECK BOX	acquiring the entire right, title		esignated as the Assignee) is desirous of and in and to any Letters Patent(s) that	
	the receipt of which is hereby has (have) sold, assigned and Assignee the full and exclusi dependencies and possessions which may be granted therefo	y acknowledged, and other good and of transferred, and by these presents of the right to the said invention in the Us and the entire right, title and interest	s10.00) to the undersigned in hand paid, valuable consideration, the undersigned does sell, assign and transfer unto said United States of America, its territories, t in and to any and all Letters Patent(s) erritories, dependencies and possessions,	
	and to any and all divisions, r terms for which the same may		d extensions thereof for the full term or	

Page 1 of 2

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree (s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of Birch, Stewart, Kolasch & Birch, LLP 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 U.S. Patent and Trademark Office for recordation of this document.

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date September 21,2005	Name of Inventor Jasuharu Jamamati
Date September 21,2005	(signature) Yasuharu YAMAMOTO  Name of Inventor  Soshinyuki Osada
Date <u>Depended 21,2005</u> ,	(signature) Toshiyuki OSADA
Date September 21,2005,	Name of Inventor  (signature) Takafumi YOSHIDA
Date September 21,2005,	Name of Inventor Juliania Kaikogi Kaikogi (signature) Takaaki KAIKOGI
Date September 21,2005,	Name of Inventor Masaharu MINAMI  (signature) Masaharu MINAMI
Date,	Name of Inventor(signature)

Page 2 of 2

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