

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Yoshiki YAMAGUCHI</td> <td>11/02/2012</td> </tr> <tr> <td>Kenichi ARIMA</td> <td>11/02/2012</td> </tr> <tr> <td>Yutaka IIDA</td> <td>11/02/2012</td> </tr> <tr> <td>Yoshishige UEMATSU</td> <td>11/02/2012</td> </tr> </tbody> </table>	Name	Execution Date	Yoshiki YAMAGUCHI	11/02/2012	Kenichi ARIMA	11/02/2012	Yutaka IIDA	11/02/2012	Yoshishige UEMATSU	11/02/2012	
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RECEIVING PARTY DATA											
Name:	MITSUBISHI HEAVY INDUSTRIES, LTD.										
Street Address:	16-5, Konan 2-chome, Minato-ku,										
City:	Tokyo										
State/Country:	JAPAN										
Postal Code:	108-8215										
PROPERTY NUMBERS Total: 1											
Property Type	Number										
Application Number:	13697884										
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ATTORNEY DOCKET NUMBER:	2012_5379A										
NAME OF SUBMITTER:	Janae Johnson										
Total Attachments: 1 source=ASSIGNMENT#page1.tif											

OP \$40.00 13697884

U.S. ASSIGNMENT

IN CONSIDERATION of the sum of One Dollar (\$1.00), and of other good and valuable consideration paid to the undersigned inventor(s) (hereinafter, "ASSIGNOR") by
(Insert Name(s) & Address(es) of ASSIGNEE(S))
MITSUBISHI HEAVY INDUSTRIES, LTD.

16-5, Konan 2-chome, Minato-ku, Tokyo 108-8215 Japan

(hereinafter, "ASSIGNEE"), the receipt of which is hereby acknowledged, the undersigned ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE the entire and exclusive right, title and interest to the invention entitled
(Title of Invention)

VERTICAL MILL

relating to International Patent Application PCT/JP2011/061080 and/or for which application for Letters Patent of the United States was executed on even date herewith or, if not so executed, was:

(a) executed on _____; (Insert date of execution of application, if not concurrent)

(b) filed on _____

Serial No. ____/____;

Assignee's attorney is hereby authorized to insert in (b) the specified data, when known.

and to said application and all Letters Patent(s) of the United States granted on said application and any continuation, division, renewal, substitute, reissue or reexamination application based thereon, for the full term or terms for which the said Letters Patent(s) may be granted and including any extensions thereof (collectively, hereinafter, "said application(s) and Letters Patent(s)").

The ASSIGNOR agree(s), when requested by said ASSIGNEE and without charge to but at the expense of said ASSIGNEE, to do all acts which the ASSIGNEE may deem necessary, desirable or expedient, for securing, maintaining and enforcing protection for said invention, including in the preparation and prosecution of said application(s) and the issuance of said Letters Patent(s), in any interference, reissue, reexamination, or public use proceeding, and in any litigation or other legal proceeding which may arise or be declared in relation to same, such acts to include but not be limited to executing all papers, including separate assignments and declarations, taking all rightful oaths, providing sworn testimony, and obtaining and producing evidence.

IN WITNESS WHEREOF, the undersigned inventor(s) has (have) affixed his/her/their signature(s).

1) <u>Yoshiki Yamaguchi</u> (Signature)	Yoshiki YAMAGUCHI (Type Name)	Nov. 02, 2012 (Date)
2) <u>Kenichi Arima</u> (Signature)	Kenichi ARIMA (Type Name)	Nov. 02, 2012 (Date)
3) <u>Yutaka Iida</u> (Signature)	Yutaka IIDA (Type Name)	Nov. 02, 2012 (Date)
4) <u>Yoshishige Uematsu</u> (Signature)	Yoshishige UEMATSU (Type Name)	Nov. 02, 2012 (Date)
5) _____ (Signature)	_____ (Type Name)	_____ (Date)