

PATENT ASSIGNMENT

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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>Yoshitake KASUBATA</td> <td>03/18/2013</td> </tr> <tr> <td>Yoshihiko HIGASHIGUCHI</td> <td>03/18/2013</td> </tr> <tr> <td>Yuichi SASAKI</td> <td>03/18/2013</td> </tr> <tr> <td>Akiko KAMBE</td> <td>03/18/2013</td> </tr> </tbody> </table>		Name	Execution Date	Yoshitake KASUBATA	03/18/2013	Yoshihiko HIGASHIGUCHI	03/18/2013	Yuichi SASAKI	03/18/2013	Akiko KAMBE	03/18/2013
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<table border="1"> <tr> <td>Name:</td> <td>MITSUBISHI HEAVY INDUSTRIES, LTD.</td> </tr> <tr> <td>Street Address:</td> <td>16-5, Konan 2-chome, Minato-ku</td> </tr> <tr> <td>City:</td> <td>Tokyo</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> <tr> <td>Postal Code:</td> <td>108-8215</td> </tr> </table>		Name:	MITSUBISHI HEAVY INDUSTRIES, LTD.	Street Address:	16-5, Konan 2-chome, Minato-ku	City:	Tokyo	State/Country:	JAPAN	Postal Code:	108-8215
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CORRESPONDENCE DATA											
<p>Fax Number: 2028221111 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 202-822-1100 Email: patentmail@whda.com Correspondent Name: WESTERMAN, HATTORI, DANIELS & ADRIAN, LL Address Line 1: 1250 CONNECTICUT AVENUE, NW Address Line 2: SUITE 700 Address Line 4: WASHINGTON, DISTRICT OF COLUMBIA 20036</p>											
ATTORNEY DOCKET NUMBER:	130516										
NAME OF SUBMITTER:	Crystal Boyer										
Signature:	/Crystal Boyer/										
Date:	04/26/2013										
Total Attachments: 1 source=130516_Assignemnt_04_26_2013#page1.tif											

OP \$40.00 13882038

PATENT

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)

BROACHING DEVICE

relating to International Patent Application PCT/JP2011/078718 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>Yoshitake Kasubata</u> (Signature)	Yoshitake KASUBATA (Type Name)	Mar. 18, 2013 (Date)
2) <u>Yoshihiko Higashiguchi</u> (Signature)	Yoshihiko HIGASHIGUCHI (Type Name)	Mar. 18, 2013 (Date)
3) <u>Yuichi Sasaki</u> (Signature)	Yuichi SASAKI (Type Name)	Mar. 18, 2013 (Date)
4) <u>Akio Kambe</u> (Signature)	Akio KAMBE (Type Name)	Mar. 18, 2013 (Date)
5) _____ (Signature)	_____ (Type Name)	_____ (Date)

PATENT