

# PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT												
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT												
<b>CONVEYING PARTY DATA</b>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th style="width: 30%;">Execution Date</th> </tr> </thead> <tbody> <tr> <td>NAVISH MAKKAR</td> <td>11/08/2010</td> </tr> <tr> <td>TOMMY RAY</td> <td>10/06/2010</td> </tr> <tr> <td>MANOJ MAHAJAN</td> <td>11/10/2010</td> </tr> <tr> <td>DWAYNE P. TERRACINA</td> <td>11/10/2010</td> </tr> <tr> <td>SAMEER BHOITE</td> <td>11/10/2010</td> </tr> </tbody> </table>		Name	Execution Date	NAVISH MAKKAR	11/08/2010	TOMMY RAY	10/06/2010	MANOJ MAHAJAN	11/10/2010	DWAYNE P. TERRACINA	11/10/2010	SAMEER BHOITE	11/10/2010
Name	Execution Date												
NAVISH MAKKAR	11/08/2010												
TOMMY RAY	10/06/2010												
MANOJ MAHAJAN	11/10/2010												
DWAYNE P. TERRACINA	11/10/2010												
SAMEER BHOITE	11/10/2010												
<b>RECEIVING PARTY DATA</b>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"><b>Name:</b></td> <td>SMITH INTERNATIONAL, INC.</td> </tr> <tr> <td><b>Street Address:</b></td> <td>1310 RANKIN RD.</td> </tr> <tr> <td><b>City:</b></td> <td>HOUSTON</td> </tr> <tr> <td><b>State/Country:</b></td> <td>TEXAS</td> </tr> <tr> <td><b>Postal Code:</b></td> <td>77073</td> </tr> </table>		<b>Name:</b>	SMITH INTERNATIONAL, INC.	<b>Street Address:</b>	1310 RANKIN RD.	<b>City:</b>	HOUSTON	<b>State/Country:</b>	TEXAS	<b>Postal Code:</b>	77073		
<b>Name:</b>	SMITH INTERNATIONAL, INC.												
<b>Street Address:</b>	1310 RANKIN RD.												
<b>City:</b>	HOUSTON												
<b>State/Country:</b>	TEXAS												
<b>Postal Code:</b>	77073												
<b>PROPERTY NUMBERS Total: 1</b>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Property Type</th> <th style="width: 70%;">Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12893652</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12893652								
Property Type	Number												
Application Number:	12893652												
<b>CORRESPONDENCE DATA</b>													
<p>Fax Number: (713)228-8778</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Email: THACH@OSHALIANG.COM</p> <p>Correspondent Name: JEFFREY S. BERGMAN</p> <p>Address Line 1: 909 FANNIN ST.</p> <p>Address Line 2: SUITE 3500</p> <p>Address Line 4: HOUSTON, TEXAS 77010</p>													
<b>ATTORNEY DOCKET NUMBER:</b>	05516/495001												
<b>NAME OF SUBMITTER:</b>	MINH S. THACH												

OP \$40.00 12893652

501375111

**PATENT**  
**REEL: 025489 FRAME: 0260**

**Total Attachments: 3**

source=05516.495001ASSIGNMENT#page1.tif

source=05516.495001ASSIGNMENT#page2.tif

source=05516.495001ASSIGNMENT#page3.tif

**PATENT**

**REEL: 025489 FRAME: 0261**

## ASSIGNMENT – WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned individual(s) (referred to herein as the "INVENTOR(S)") hereby assign, transfer, and set over to:

Smith International, Inc.

having the following address:

1310 Rankin Rd.  
Houston, Texas 77073

(referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest, worldwide, in and to the invention known by the following title:

### DOWNHOLE REAMER ASYMMETRIC CUTTING STRUCTURES

for which the undersigned has/have executed an application for patent in the United States of America on or about this same day, together with said patent application, all divisions, continuations, continuations-in-part, reissues, and extensions thereof, and all Letters Patent (domestic and foreign) which may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR(S) if this assignment had not been made.

In addition, the undersigned INVENTOR(S) each hereby agrees:

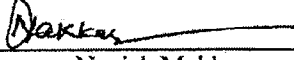
1. To sign and execute any further documents which may be necessary or desirable, lawful, and proper in connection with the prosecution of all applications for patent(s) on the INVENTION in the United States, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY;
2. To execute all papers and documents and to perform all lawful acts which may be necessary in connection with claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements;
3. To perform all lawful affirmative acts which may be necessary to obtain the grant of a valid and enforceable patent to COMPANY.

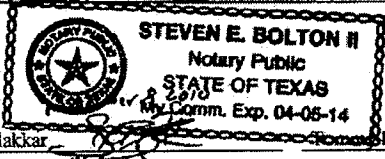
The undersigned INVENTOR(S) each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation-in-part, or reissue thereof to COMPANY.

The undersigned INVENTOR(S) each hereby grants to the firm of OSHA LIANG 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 United States Patent and Trademark Office for the recordation of this document.

OSHA

IN WITNESS WHEREOF, this Assignment has been executed by each of the undersigned

<u>11/08/2010</u> Date	1 <sup>st</sup> Inventor Signature: <u></u> Print or Type Name: <u>Navish Makkar</u>
 Date	2 <sup>nd</sup> Inventor Signature: _____ Print or Type Name: <u>Tommy Ray</u>
 Date	3 <sup>rd</sup> Inventor Signature: _____ Print or Type Name: <u>Manoj Mahajan</u>
 Date	4 <sup>th</sup> Inventor Signature: _____ Print or Type Name: <u>Dwayne P. Terracina</u>
 Date	5 <sup>th</sup> Inventor Signature: _____ Print or Type Name: <u>Sameer Bhoite</u>

<b>NOTARY PUBLIC</b>	State of <u>Texas</u> County of <u>Montgomery</u>	
	Before me personally appeared:	<u>Navish Makkar</u> 1 <sup>st</sup> Inventor
		<u>Manoj Mahajan</u> 3 <sup>rd</sup> Inventor
		<u>Sameer Bhoite</u> 5 <sup>th</sup> Inventor
		<u>Tommy Ray</u> 2 <sup>nd</sup> Inventor
		<u>Dwayne P. Terracina</u> 4 <sup>th</sup> Inventor
each of whom acknowledged the foregoing instrument to be a free act and deed and also represented that he/she is authorized to execute this Assignment.		
Dated: _____ Notary Public My commission expires: _____		

<b>WITNESSES</b>	Signature of Witness: _____ Date _____ Print or Type Name: _____
	Signature of Witness: _____ Date _____ Print or Type Name: _____

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

U.S. Application Serial No.:	12/893,652
Filing Date:	September 29, 2010

IN WITNESS WHEREOF, this Assignment has been executed by each of the undersigned individuals on the date appearing by such individual's signature:

_____ Date	1 <sup>st</sup> Inventor Signature: _____ Print or Type Name: Navish Makkar
6 Oct 10 _____ Date	2 <sup>nd</sup> Inventor Signature: _____ Print or Type Name: Tommy Ray
10/11/10 _____ Date	3 <sup>rd</sup> Inventor Signature: _____ Print or Type Name: Manoj Mahajan
10/11/10 _____ Date	4 <sup>th</sup> Inventor Signature: _____ Print or Type Name: Dwayne P. Terracina
10/11/10 _____ Date	5 <sup>th</sup> Inventor Signature: _____ Print or Type Name: Sameer Bhoite

NOTARY PUBLIC

State of Texas  
County of Harris

Before me personally appeared:

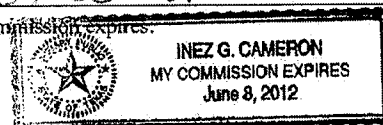
<u>Navish Makkar</u> 1 <sup>st</sup> Inventor	<u>Tommy Ray</u> 2 <sup>nd</sup> Inventor
<u>Manoj Mahajan</u> 3 <sup>rd</sup> Inventor	<u>Dwayne P. Terracina</u> 4 <sup>th</sup> Inventor
<u>Sameer Bhoite</u> 5 <sup>th</sup> Inventor	_____ 6 <sup>th</sup> Inventor
_____ 7 <sup>th</sup> Inventor	_____ 8 <sup>th</sup> Inventor

each of whom acknowledged the foregoing instrument to be a free act and deed and also represented that he/she is authorized to execute this Assignment.

Dated: 10/6 + 11/10

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
My commission expires.



WITNESSES

_____ Date	Signature of Witness: _____ Print or Type Name: _____
_____ Date	Signature of Witness: _____ Print or Type Name: _____

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

U.S. Application Serial No.:  
Filing Date:

12/893,652  
September 29, 2010

OSHA

Intellectual Property Law

RECORDED: 12/10/2010

PATENT  
REEL: 025489 FRAME: 0264