

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>NAVISH MAKKAR</td> <td>02/12/2012</td> </tr> <tr> <td>BRIAN CRUICKSHANK</td> <td>01/04/2012</td> </tr> <tr> <td>CHARLES DEWEY</td> <td>01/05/2012</td> </tr> <tr> <td>MICHAEL G. AZAR</td> <td>01/03/2012</td> </tr> </tbody> </table>		Name	Execution Date	NAVISH MAKKAR	02/12/2012	BRIAN CRUICKSHANK	01/04/2012	CHARLES DEWEY	01/05/2012	MICHAEL G. AZAR	01/03/2012
Name	Execution Date										
NAVISH MAKKAR	02/12/2012										
BRIAN CRUICKSHANK	01/04/2012										
CHARLES DEWEY	01/05/2012										
MICHAEL G. AZAR	01/03/2012										
RECEIVING PARTY DATA											
Name:	SMITH INTERNATIONAL, INC.										
Street Address:	1310 RANKIN RD.										
City:	HOUSTON										
State/Country:	TEXAS										
Postal Code:	77073										
PROPERTY NUMBERS Total: 1											
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13324265</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13324265						
Property Type	Number										
Application Number:	13324265										
CORRESPONDENCE DATA											
Fax Number:	(713)228-8778										
Email:	MTHACH@OSHALIANG.COM										
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>											
Correspondent Name:	JEFFREY S. BERGMAN										
Address Line 1:	909 FANNIN ST.										
Address Line 2:	SUITE 3500										
Address Line 4:	HOUSTON, TEXAS 77010										
ATTORNEY DOCKET NUMBER:	05516/497001										
NAME OF SUBMITTER:	MINH S. THACH										
Total Attachments: 4 source=497001#page1.tif source=497001#page2.tif source=497001#page3.tif source=497001#page4.tif											

OP \$40.00 13324265

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:

APPARATUSES AND METHODS FOR STABILIZING DOWNHOLE TOOLS

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.

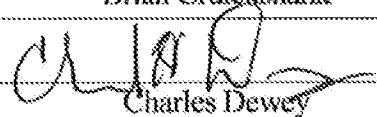
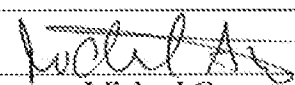
In addition, the undersigned INVENTOR(S) each hereby agrees:

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.

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

_____	1st Inventor Signature:	_____
Date	Print or Type Name:	Navish Makkar
_____	2nd Inventor Signature:	_____
Date	Print or Type Name:	Brian Cruickshank
1/5/12	3rd Inventor Signature:	
Date	Print or Type Name:	Charles Dewey
1/3/12	4th Inventor Signature:	
Date	Print or Type Name:	Michael George Azar M.G.

State of Texas
 County of Harris

NOTARY PUBLIC

Before me personally appeared: Navish Makkar Brian Cruickshank
1st Inventor 2nd Inventor

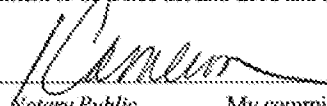
Charles Dewey Michael George Azar
3rd Inventor 4th Inventor

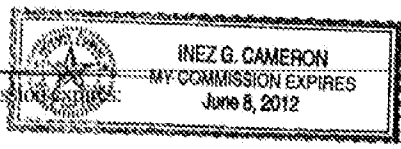
_____ 5th Inventor _____ 6th Inventor

_____ 7th Inventor _____ 8th 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: 1/3+5/12


 Notary Public My commission expires:



WITNESSES

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.: 13/324,265
 Filing Date: December 13, 2011

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

FEB 12, 2012
Date

1st Inventor Signature: [Signature]
Print or Type Name: Navish Makkar

Date

2nd Inventor Signature: _____
Print or Type Name: Brian Cruickshank

Date

3rd Inventor Signature: _____
Print or Type Name: Charles Dewey

Date

4th Inventor Signature: _____
Print or Type Name: Michael George Azar

NOTARY PUBLIC

State of _____

County of _____

Before me personally appeared: Navish Makkar Brian Cruickshank
1st Inventor 2nd Inventor
Charles Dewey Michael George Azar
3rd Inventor 4th Inventor

5th Inventor 6th Inventor

7th Inventor 8th 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: _____

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.: 13/324,265
Filing Date: December 13, 2011

OSHA

Intellectual Property Law

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

..... Date 1/4/12 Date Date Date	1 st Inventor Signature: _____ Print or Type Name: Navish Makkar
	2 nd Inventor Signature: <u>[Signature]</u> Print or Type Name: Brian Cruickshank
	3 rd Inventor Signature: <u>[Signature]</u> Print or Type Name: Charles Dewey
	4 th Inventor Signature: _____ Print or Type Name: Michael George Azar

NOTARY PUBLIC

State of Texas
County of Harris

Before me personally appeared: Navish Makkar [Signature] 1st Inventor
Charles Dewey [Signature] 2nd Inventor
Michael George Azar [Signature] 3rd 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: 1/4/2012

[Signature]
Notary Public My commission expires 12-04-14

RUBY BURNS
Notary Public,
State of Texas
Comm. Exp. 12-04-14

WITNESSES

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.: 13/324,265
Filing Date: December 13, 2011

OSHALIANG

Intellectual Property Law

RECORDED: 02/28/2012

PATENT

REEL: 027778 FRAME: 0102