

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
Name	Execution Date
Zhehua Zhang	12/22/2010
<b>RECEIVING PARTY DATA</b>	
Name:	Smith International, Inc.
Street Address:	1310 Rankin Road
City:	Houston
State/Country:	TEXAS
Postal Code:	77073
<b>PROPERTY NUMBERS Total: 1</b>	
Property Type	Number
Application Number:	12985054
<b>CORRESPONDENCE DATA</b>	
Fax Number:	(713)228-8778
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Phone:	7132288600
Email:	landgraf@oshaliang.com
Correspondent Name:	Jeffrey S Bergman
Address Line 1:	909 Fannin Street
Address Line 2:	Suite 3500
Address Line 4:	Houston, TEXAS 77010
ATTORNEY DOCKET NUMBER:	05516/455003
NAME OF SUBMITTER:	Traci Landgraf
Total Attachments: 2 source=assignment#page1.tif source=assignment#page2.tif	

OP \$40.00 12985054

## 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:

### HIGH-SHEAR ROLLER CONE AND PDC HYBRID BIT

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.

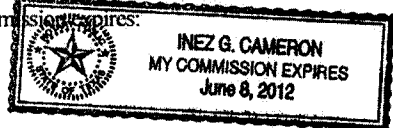
The undersigned INVENTOR(S) each hereby grants to the firm of OSHA LIANG LLP the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.

OSHA

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

\_\_\_\_\_ 12/22/10 \_\_\_\_\_  
 Date 1<sup>st</sup> Inventor Signature: Zhehua Zhang  
 Print or Type Name: Zhehua Zhang  
 \_\_\_\_\_  
 Date 2<sup>nd</sup> Inventor Signature: \_\_\_\_\_  
 Print or Type Name: \_\_\_\_\_  
 \_\_\_\_\_  
 Date 3<sup>rd</sup> Inventor Signature: \_\_\_\_\_  
 Print or Type Name: \_\_\_\_\_  
 \_\_\_\_\_  
 Date 4<sup>th</sup> Inventor Signature: \_\_\_\_\_  
 Print or Type Name: \_\_\_\_\_

State of Texas  
 County of Harris  
 Before me personally appeared: Zhehua Zhang  
 1<sup>st</sup> Inventor \_\_\_\_\_ 2<sup>nd</sup> Inventor \_\_\_\_\_  
 3<sup>rd</sup> Inventor \_\_\_\_\_ 4<sup>th</sup> Inventor \_\_\_\_\_  
 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: 12/22/10 \_\_\_\_\_  
 Notary Public My commission expires:



**NOTARY PUBLIC**  
**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.: 12/985,054  
 Filing Date: January 5, 2011

**OSHA**  
 Intellectual Property Law