

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Bala Durairajan	03/29/2006
Peter Thomas Cariveau	03/06/2006
Sujian J. Huang	03/29/2006
RECEIVING PARTY DATA	
Name:	Smith International, Inc.
Street Address:	16740 Hardy Street
City:	Houston
State/Country:	TEXAS
Postal Code:	77032
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	11329976
CORRESPONDENCE DATA	
Fax Number:	(713)228-8778
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Phone:	713-228-8600
Email:	smith@oshaliang.com
Correspondent Name:	Jeffrey S. Bergman
Address Line 1:	1221 McKinney Street, Suite 2800
Address Line 4:	Houston, TEXAS 77010
ATTORNEY DOCKET NUMBER:	5516.208002
NAME OF SUBMITTER:	Lisa H. Smith

Total Attachments: 4
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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:

16740 HARDY STREET, HOUSTON, TEXAS 77032

(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:

PDC DRILL BIT USING OPTIMIZED SIDE RAKE ANGLE

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) that 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 that 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 that 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 that may be necessary to obtain the grant of valid and enforceable patents 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 that 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.

PATENT

REEL: 017683 FRAME: 0058

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

_____	1 st Inventor Signature: _____
Date	Print or Type Name: <u>Bala Durairajan</u>
<u>3/16/06</u>	2 nd Inventor Signature: <u><i>Peter Thomas Cariveau</i></u>
Date	Print or Type Name: <u>Peter Thomas Cariveau</u>
_____	3 rd Inventor Signature: _____
Date	Print or Type Name: <u>Sujian J. Huang</u>
_____	4 th Inventor Signature: _____
Date	Print or Type Name: _____

This Assignment may be signed before either:
(a) a Notary Public for one of the States of the United States, or (b) two witnesses who sign below:

NOTARY PUBLIC

State of Utah
County of Utah

Before me personally appeared: _____ *Peter Cariveau* _____
1st Inventor 2nd Inventor

_____ 3rd Inventor _____ 4th 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: 3/16/06 _____ *Sharmae W. Gilgen* _____
Notary Public My commission expires: May 23, 2009

WITNESSES

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

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



Notary Public
SHARMAE W. GILGEN
482 W. 1300 N.
American Fork, UT 84003
My Commission Expires
May 23, 2009
State of Utah

139031_1

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.: 11/329,976
Filing Date: January 11, 2006

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 st Inventor Signature: _____	Print or Type Name: <u>Bala Durairajan</u>
Date		2 nd Inventor Signature: _____	Print or Type Name: <u>Peter Thomas Cariveau</u>
<u>3/29/06</u>		3 rd Inventor Signature: _____	Print or Type Name: <u>Sujian J. Huang</u>
Date		4 th Inventor Signature: _____	Print or Type Name: _____

This Assignment may be signed before either:
(a) a Notary Public for one of the States of the United States, or (b) two witnesses who sign below:

NOTARY PUBLIC	State of _____
	County of _____
	Before me personally appeared: _____
	1 st Inventor
	2 nd Inventor
	3 rd Inventor
	4 th 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	Signature of Witness: _____
	Date _____
	Print or Type Name: _____
	Signature of Witness: _____
Date _____	
Print or Type Name: _____	

139031_1

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.: 11/329,976
Filing Date: January 11, 2006