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OMB No. 0651-0027 (exp. 5/31/2002)		
To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof		
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Peter Thomas Cariveau (11/02/2005),	Name: Smith International, Inc.	
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Zhohad Zhang (11/01/2000)	Street Address:	
Additional name(s) of conveying party(ies) Yes X No attached?		
3. Nature of Conveyance:	16740 Hardy Street	
x Assignment Merger		
Security Agreement Change of Name	City: Houston	
Other	State: Texas Zip: 77032	
Execution Date: in parentheses after inventor name	Additional name(s) & Yes X No address(es) attached:	
Application number(s) or patent number(s):	대 경 : 중 공	
If this document is being filed together with a new application, the ex-	ecution date of the new application is:	
A. Patent Application No.(s): Filing Date:	B. Patent No.(s):	
11/232,434 09/21/2005	(2) (1) ************************************	
Additional numbers attache	ed? Yes X No O	
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:	
Name: Jeffrey S. Bergman OSHA · LIANG LLP	7. Total fee (37 CFR 3.41) \$40.00	
Internal Address: Atty. Dkt.: 05516/245001	Enclosed	
Street Address:	Authorized to be charged to deposit account	
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To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.		
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Total number of pages including cover sheet, attachments, and documents: 6		

I hereby certify that this correspondence is being deposited with the N.S. Postal Service as Express Mail, Airbill No. EV766454160US, in an envelope addressed to: Commissioner for Patents 170. Bux 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: November 7, 2005

11/09/2005 ECOOPER 00000038 11232434

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PATENT REEL: 017191 FRAME: 0384

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:

HYBRID DISC BIT WITH OPTIMIZED PDC CUTTER PLACEMENT.

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;
- 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.

OSHA•LIANG TEP

PATENT REEL: 017191 FRAME: 0385

indivi		vHEREOF, this Assignment has been executed by each of the undersigned g by such individual's signature:
	1/2/2005 Date	1st Inventor Signature: Deter Thomas CARIVEAU Print or Type Name: Peter Thomas CARIVEAU
	11/1/05 Date	2nd Inventor Signature: Print or Type Name: Prabhakaran K. CENTALA
	1/1/05 Date	Print or Type Name: Zhehua ZHANG
•	Date	4 th Inventor Signature: Print or Type Name:
	This Assignment sho	uid be signed before a Hotary Public for one of the States of the United States.
NOTARY PUBLIC	Dated: // / NEZ G. O. MY COMMISS	The hua Z hang The hua Z hang The house The hua Z hang The hua Z hang The house Th

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

U.S. Application Serial No.:

11/232,434

Filing Date:

09/21/2005

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RECORDED: 11/07/2005

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PATENT REEL: 017191 FRAME: 0386