01-23-	2002	Docket No.: 05516.068001		
FORM_PTO-1535 (Modified) (Rev. 03-01) OMB No. 0651-0027 (exp.5/31/2002) P08/REV_3		HEET	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office	
Tab settings → → → ▼ 101955	446 _.	▼	▼ ▼	
To the Honorable Commissioner of Patents and Tradema	rks: Please rec	ord the attached o	riginal documents or copy thereof.	
1. Name of conveying party(ies): Amardeep SINGH Sujian HUANG		2. Name and address of receiving party(ies): Name: Smith International, Inc.		
•	Interna	Internal Address: 16740 Hardy Street		
Additional names(s) of conveying party(ies)				
3. Nature of conveyance:				
🛛 Assignment 🗌 Merger	Street	Street Address:		
Security Agreement Change of Name				
Other	City: <u>I</u>	Iouston	State: <u>Tex</u> ZIP: <u>77032</u>	
Execution Date: 10/31/2001 and 11/02/2001	Additional	name(s) & address	s(es) attached? 🔲 Yes 🛛 No	
4. Application number(s) or patent numbers(s):If this document is being filed together with a new applicaA. Patent Application No.(s)		tion date of the ap 3. Patent No.(s)	plication is:	
09/604,232 June 27, 2000				
Additional numbers 5. Name and address of party to whom correspondence concerning document should be mailed:		Yes 🛛 No number of applicat	ions and patents involved:	
	7 Total f	ee (37 CER 3.41)	·\$ 40.00	
Name: <u>Richard A. Fagin</u> Internal Address: <u>ROSENTHAL & OSHA L.L.P.</u>	X Fr	 7. Total fee (37 CFR 3.41):\$ 40.00 X Enclosed - Any excess or insufficiency should be credited or debited to deposit account 		
		uthorized to be ch	arged to deposit account	
Street Address: 700 Louisiana, Suite 4550		sit account numbe	A	
City: <u>Houston</u> State: <u>Tx</u> ZIP: <u>7700</u>	02 (Atta	ch duplicate copy of t	nis page if paying by deposit account	
	NOT USE THIS S		any attached copy is a true copy	
Richard A. Fagin, Reg. No. 39,182	Maa	Jugh		
Name of Person Signing	Signa over sheet, attac	nments, and docum	ເຕັ 💦 🖓	
Mail documents to be reco	orded with required cover atents & Trademarks, I ashington, D.C. 20231	Box Assignments	PATENT 12473 FRAME: 0981	

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:

CUTTING ELEMENT GEOMETRY FOR ROLLER CONE DRILL 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) 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 ROSENTHAL & OSHA L.L.P. 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.

ROSENTHAL & OSHA L.L.P.

PATENT REEL: 012473 FRAME: 0982 IN WITNESS WHEREOF, this Assignment has been executed by each of the undersigned individuals on the date appearing by such individual's signature:

--:<u>:</u>

	1 st Inventor Signature:	
Date	Print or Type Name: A	mardeen STNGIL
	•	
10/31/01	2 nd Inventor Signature:	SUAST
Date	Print or Type Name: St	ijian MUANG
10/3/101		$\hat{\mathcal{O}}$
Date	WITNESS Signature:	aneul
	Print or Type Name:	CARMEN ZHAO
1013,101	luntro or sing of T	V. Bach
Date	Withe 55 Signature: J Print or Type Name:	IN/1 3-3-12
This Assignment must	e signed before a Notary Public fo	r one of the States of the United States.
		of the office of the office states.
State of		· ·
County of		
Before me personally appeared:	(m)	
	Amendeep Singh-	Sujian Huang
Before me personally appeared:	1 21-1-5-5-5-5	2 nd Lavisson
The states of the states of the states of the	J ^{ad} (gragginen)	4ª Incaro
execute this Assignment	regoing instrument to be a free act a	and deed and also represented that he/she is authorized to
Dated:		
	Notary Public	My commission expires:
21294_1.DOC		
	ment is <u>not</u> filed concurrently identifying information may be	
-	ution Serial No.: 09/604,232	
	Pling Date: June 27, 20	11
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	DOCENTUAL & OCH	A [] B

ROSENTHAL & OSHA L.L.P.

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

	11/2/01 Date	1 st Inventor Signature: Print or Type Name:	Amardeep Singh Amardeep SINGH	
	Date	2 nd Inventor Signature: Print or Type Name:	S ujian HUAN G	
	Date	3 rd Inventor Signature: Print or Type Name:		
	Date	4 th Inventor Signature: Print or Type Name:		
	This Assignment <u>must</u> b	e signed before a Notary Pub	lic for one of the States of the	United States.
NOTARY PUBLIC	State of $\underline{Te X \partial S}$ County of \underline{Horris} Before me personally appeared:	Amardeep Singh	Sujian Hu	ang 2 nd Inventor
NOTAR	each of whom acknowledged the freexecute this Assignment. Dated://- Z - O/		e act and deed and also represer	
21294_	IN IN	EZ G. SCHIFANI MMISSION EXPIRE June 8, 2004		

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.: 09/604,232 Filing Date: June 27, 2000

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RECORDED: 01/10/2002