|   | Docket No.: 05516.011001  |
|---|---|
| FORM PTO-1595 (Modified) 05 - 03 - (Rev. 6-93)  | 1999 U.S. DEPARTMENT OF COMMERC   |
| OMB No. 0651-0011 (exp.4/94)<br>Copyright 1994-97 LegalStar<br>P08/RFV02                  | Patent and Trademark Offi   |
|   | A MATTA ANALA KANA TANA ANA ANA ANA ANA ANA ANA ANA ANA   |
| Tab settings $\rightarrow \rightarrow \bullet$ 101026                                     | 5491 V V<br>Please record the attached original documents or copy thereof.  |
| 1. Name of conveying party(ies):  | <ol> <li>Please record the attached original documents or copy thereof.</li> <li>Name and address of receiving party(ies):</li> </ol> |
| Peter Cariveau  |   |
| Robert Slaughter<br>Zhigang Fang  | Name: SMITH INTERNATIONAL, INC.   |
| zingung i ung   |   |
|   | Internal Address:   |
| Additional names(s) of conveying party(ies) 🛛 🗌 Yes 🕱 No                                  |   |
| 3. Nature of conveyance:  |   |
| 🛛 Assignment 🗌 Merger   | Street Address: 16740 Hardy Street  |
|   |   |
| Security Agreement     Change of Name   |   |
| Other   | City: Houston State: TX ZIP: 77032  |
| Execution Date: March 24, 1999 and April 6, 1999  |   |
|   | Additional name(s) & address(es) attached?  Yes X No  |
| 4. Application number(s) or registration numbers(s):                                      |   |
| If this document is being filed together with a new application                           | n, the execution date of the application is:  |
| A. Patent Application No.(s)  | B. Patent No.(s)  |
| 00/026 147  |   |
| 09/236,147  |   |
|   |   |
|   |   |
| Additional numbers attac  | │<br>ched? □ Yes ⊠ No   |
|   |   |
| 5. Name and address of party to whom correspondence concerning document should be mailed: | 6. Total number of applications and patents involved: 1   |
| -   |   |
| Name: Joanthan P. Osha  | 7. Total fee (37 CFR 3.41):\$ 40.00   |
| Internal Address: ROSENTHAL & OSHA L.L.P.   | Enclosed - Any excess or insufficiency should be  |
|   | credited or debited to deposit account  |
|   | Authorized to be charged to deposit account   |
|   |   |
| Street Address: 700 Louisiana Street, Suite 4550  | 8. Deposit account number:  |
| 5/03/1999 DHGUYEN 00000003 09236147   |   |
| FC:581 40.00 00   | 50-0591   |
| City: Houston State: TX ZIP: 77002  |   |
| J DO NOT  | USE THIS SPACE  |
| 9. Statement and signature.   |   |
| To the best of my knowledge and belief, the pregoing inform                               | ation is true and correct and any attached copy is a true copy  |
| of the original document.   | 7   |
| Jonathan P. Osha Reg. No. 33,986  | April 20, 1999  |
| Name of Person Signing  | Signature Date  |
| Total number of pages including cover sh  | neet, attachments, and document:  |
|   | PATENT  |
|   | REEL: 9916 FRAME: 0739  |

## **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:

## **IMPROVED EARTH-BORING BITS**

for which the undersigned has/have executed an application for patent in the United States of America on 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-inpart, 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 ROSENTHAL & OSHA L.L.P. 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.

ROSENTHAL & OSHA L.L.P.

PATENT REEL: 9916 FRAME: 0740 IN WITNESS WHEREOF, this Assignment has been executed by each of the undersigned individuals on the date appearing by such individual's signature:

| , ,   | $ \land$  | 1  |
|---|---|--|
| 4/6/99  | Signature:  | ancan  |
| Date  | Print or Type Name: Peter Cariveau  |  |
| 4/6/99  | Signature: Rabert   | N. Slanster A.   |
| / Date  | Print or Type Name: Robert Slaughter  | <u></u>  |
|   | Signature:  | 7 3/24/89  |
| Date  | Print or Type Name: Zhigang Fang  | \$   |
| Date  |   |  |
|   | Signatura   |  |
| Date  |   |  |
| State of<br>County of   |   |  |
| Before me personally appeared:  | Peter Cariveau  | Robert Slaughter   |
|   | I* Inventor   | 2 <sup>nd</sup> Inventor   |
|   | Zhigang Fang  |  |
|   |   | 4 <sup>th</sup> Inventor   |
| Before me personally appeared:<br>each of whom acknowledged t<br>authorized to execute this Assign<br>Dated: $4 - 4 - 99$ | he foregoing instrument to be a free act ament.   | and deed and also represented that he/sh   |
|   | Notary Public My co   | mmission expires: $\int \mathcal{U} \mathcal{U} \mathcal{U} \mathcal{J} \mathcal{J} \mathcal{J} \mathcal{J} \mathcal{J} \mathcal{J} \mathcal{J} J$ |
|   | Assignment is <u>not</u> filed concurrently with the owing identifying information may be added | e patent application   |
| the foll  | owing identifying information may be added  | after execution:   |

*U.S. Application Serial No.:* 09/236,147 *Filing Date:* January 22, 1999

ROSENTHAL & OSHA L.L.P

5.1.1.1.1.

**RECORDED: 04/26/1999**