Attorney Docket No 1030-18000 Express Mail Label # EL444159689US

MAP 4.12.W 04-25-200

~ 10 W 4.10 W 04-2	5-2000
FORM PTO-1595 (Rev. 6-93) Patent and Tradernark Office	U. S. DEPARTMENT OF COMMERCE
OMB No. 0651-0011 (exp. 4/94) To the Honorable Commissioner of Patents and Trag 1013	332//0ments or copy thereof.
1. Name of conveying parties(ies):	2. Name and address of receiving party(ies):
value of conveying parties(ies).	2. Name and address of receiving party(les):
Quan V. Nguyen, James L. Larsen, Michael A. Siracki and Chris E. Cawthorne Additional name(s) of conveying party(ies):	SMITH INTERNATIONAL, INC. 16740 Hardy St. Houston, Texas 77032
Attached? [] Yes [No	Additional name(s) & address(es)
3. Nature of conveyance:	
	Attached? Yes No
Execution Date: Ar il 11, 2000	
4. Application nu nber(s) or patent number(s):	09/547691
A. Patent Application No.(s). Additional numbers att	B. Patent No.(s).
A Control of The Cont	100 110
5. Name and adcress of party to whom correspondence concerning document should be mailed: Robert Gray Conley, Rose & Tayon, P.C. P. O. Box 2267	6. Total number of application and patents involved: _1_
24/2000 LUNGHING APOCHORI: 99547691267	
FC:561 40.00 DP	7. Total fee (37 CFR 3.41)\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
	6. Deposit account number. 03-2/09
DO NOT US	(Attach duplicate copy of this page if paying by deposit account) SE THIS SPACE
9. Statement and signature.	
C C	nformation is true and correct and any attached copy if a true copy of $I = I$

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments

Washington, D. C. 20231

Signature

ROBERT GRAY

Name of Person Signing

PATENT REEL: 010715 FRAME: 0404

April 12, 2000

Date

ASSIGNMENT

IN CONSIDERATION OF TEN DOLLARS (\$10.00) cash in hand paid to us by SMITH INTERNATIONAL, INC., and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, we. QUAN V. NGUYEN, JAMES L. LARSEN, MICHAEL A. SIRACKI, and CHRIS E. CAWTHORNE ("ASSIGNORS"), having made an invention in DIRECTIONAL FLOW NOZZI E RETENTION BODY while in the employ of SMITH INTERNATIONAL, INC., a corporation organized and existing under the laws of the State of Delaware, doing business at 16740 Hardy Street, Houston, Texas 77032 (sometimes hereinafter called "ASSIGNEE"), do hereby ASSIGN, SELL and CONVEY to said ASSIGNEE, its successors and assigns, the entire right, title and interest throughout the world in and to:

- 1. Said invention in DIRECTIONAL FLOW NOZZLE RETENTION BODY;
- United States of America patent application on said invention filed herewith, entitled DIRECTIONAL FLOW NOZZLE RETENTION BODY;
- All applications for patent or like protection on said invention that have now been or may in the future be made by us or our legal representatives, whether in the United States of America or any other place anywhere in the world;
- All patents and like protection that have now been or may in the future be granted on said invention to us or our legal representatives, whether in the United States of America or in any other country or place anywhere in the world;
- All substitutions for and divisions, continuations, continuations-in-part, renewals, reissues, extensions, and the like of said applications and patents and like grants, including without limitations, those obtained or permissible under past, present and future law and statutes;
- All rights of action on account of past, present and future unauthorized use of said invention for infringement of said patents and like protection;

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PATENT REEL: 010715 FRAME: 0405

- 7 The right to ASSIGNEE to file in its name applications for patents and like protection for said invention in any country or countries foreign to the United States; and
- 8 All international rights of priority associated with said invention, applications, patents and like protection;

and we covenant that we, our heirs, legal representatives, assigns, administrators, and executors will at the expense of ASSIGNEE, its successors and assigns, execute all papers and perform such other acts as may be reasonably necessary to give ASSIGNEE, its successors and assigns, the full benefit of this Assignmen.

EXECUTED at Houston, Texas on the date indicated below, opposite our signatures.

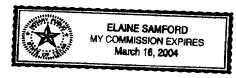
04 11/00	Luan van Ngyen
Date	QUAN V. NGUYEN

THE STATE OF TEXAS

COUNTY OF HARRIS

BEFORE ME, the undersigned authority, on this day personally appeared QUAN V. NGUYEN, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the // day of APK12, 2000.



Notary Public in and for the State of TEXAS

4/11/CC Date

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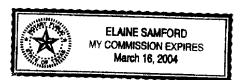
JAMES L. LARSEN

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THE STATE OF TEXAS	
	§
COUNTY OF HARRIS	8

BEFORE ME, the undersigned authority, on this day personally appeared JAMES L. LARSEN, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the // day of APRILE____, 2000.



Notary Public in and for the State of TEXAS

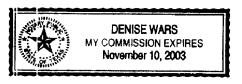
Date MICHAEL A. SIRACKI

THE STATE OF TEXAS §

COUNTY OF HARRIS

BEFORE ME, the undersigned authority, on this day personally appeared MICHAEL A. SIRACKI, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the life day of 2000.



Notary Public in and for the State of T E X A S

كارا ور, Date

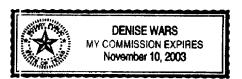
CHRIS E. CAWTHORNE

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THE STATE OF TEXAS & SCOUNTY OF HARRIS

BEFORE ME, the undersigned authority, on this day personally appeared CHRIS E. CAWTHORNE, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the day of 2000.



Notary Public in and for the State of T E X A S

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RECORDED: 04/12/2000

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PATENT REEL: 010715 FRAME: 0408