#### 504726123 01/11/2018

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4772847

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
TOBIAS DREXL	11/06/2017
ANDREAS HARTIG	11/06/2017
THOMAS SCHMALHOLZ	11/06/2017
BERNHARD LINK	11/07/2017
GORAN GOLUBOVIC	11/06/2017

#### RECEIVING PARTY DATA

Name:	HILTI AKTIENGESELLSCHAFT
Street Address:	FELDKIRCHERSTRASSE 100
City:	SCHAAN
State/Country:	LIECHTENSTEIN
Postal Code:	9494

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15569267

### **CORRESPONDENCE DATA**

(202)628-8844 Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: (202)624-2500

edocket@crowell.com, abaland@crowell.com Email:

**Correspondent Name:** CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP

Address Line 1: P.O. BOX 14300

WASHINGTON, D.C. 20044-4300 Address Line 4:

ATTORNEY DOCKET NUMBER:	105440.70316US
NAME OF SUBMITTER:	ROBERT L. GRABAREK, JR.
SIGNATURE:	/Robert L. Grabarek, Jr./
DATE SIGNED:	01/11/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).
	·

Total Attachments: 5

**PATENT** REEL: 044603 FRAME: 0152

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Title of Invention:

## ASSIGNMENT AND DECLARATION UNDER 37 C.F.R. § 1.63

(For Use with Signed Application Data Sheet)

This as	ssignment and declaration are directed to (check one):
	the application identified above by the attorney docket no. and title of invention
$\boxtimes$	PCT International Application Number PCT/EP2016/059011, filed April 22, 2016
	United States Application No, filed

Intelligent Core-Drilling End Detection

## **ASSIGNMENT**

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, as a below named inventor I have sold and assigned, and by these presents hereby sell and assign, unto:

Name of Assignce: Hilti Corporation

Address of Assignee: Feldkircherstrasse 100

9494 Schaan, Liechtenstein

(hereinafter ASSIGNEE) all my right, title and interest for the United States, its territories and possessions in and to the above-identified invention and United States patent application, including any and all divisions or continuations thereof, and in and to any and all Letters Patent of the United States which may issue on any such application or for said invention, including any and all reissues or extensions thereof, to be held and enjoyed by said ASSIGNEE, its successors or assigns to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by me had this Assignment not been made.

I hereby authorize and request the Director of the U.S. Patent and Trademark Office to issue any and all such Letters Patent to said ASSIGNEE, its successors or assigns in accordance herewith.

I warrant and covenant that I have the full and unencumbered right to sell and assign the interests herein sold and assigned and that I have not executed and will not execute any document or instrument in conflict herewith.

I further covenant and agree that I will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to me relating to said invention or patent application and that I will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the United States for said invention.

## **DECLARATION**

As a below named inventor, I hereby declare that:

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Signature: Inventor:

Tablas DWXXI

DATE

# ASSIGNMENT AND DECLARATION UNDER 37 C.F.R. § 1.63

(For Use with Signed Application Data Sheet)

Title of Invention:	Intelligent Core-Drilling End Detection	
This assignment and declaration are directed to (check one):  the application identified above by the attorney docket no. and title of invention  PCT International Application Number PCT/EP2016/059011, filed April 22, 2016  United States Application No, filed,		
	<u>ASSIGNMENT</u>	
	consideration, the receipt and sufficiency of which are have sold and assigned, and by these presents hereb	
Name of Assignce:	Hilti Corporation	
Address of Assignee:	Feldkircherstrasse 100 9494 Schaan, Liechtenstein	
(hereinafter ASSIGNEE) all my right, title and interest for the United States, its territories and possessions in and to the above-identified invention and United States patent application, including any and all divisions or continuations thereof, and in and to any and all Letters Patent of the United States which may issue on any such application or for said invention, including any and all reissues or extensions thereof, to be held and enjoyed by said ASSIGNEE, its successors or assigns to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by me had this Assignment not been made.		
I hereby authorize and request the Director of the U.S. Patent and Trademark Office to issue any and all such Letters Patent to said ASSIGNEE, its successors or assigns in accordance herewith.		
I warrant and covenant that I have the full and unencumbered right to sell and assign the interests herein sold and assigned and that I have not executed and will not execute any document or instrument in conflict herewith.		
I further covenant and agree that I will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to me relating to said invention or patent application and that I will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors or assigns, or to assist said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the United States for said invention.		
DECLARATION		
As a below named inventor, I hereby declare that:		
The above-identified application was made or authorized to be made by me.		
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.		
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of post more than five (5) years, or both.		
Signature: Inventor: Andre:	AS MARTIG	6-11-2017 DATE

## ASSIGNMENT AND DECLARATION UNDER 37 C.F.R. § 1.63

(For Use with Signed Application Data Sheet)

Title of Invention:	Intelligent Core-Drilling End Det	ection
the application in PCT Internation	claration are directed to (check one dentified above by the attorney doe al Application Number PCT/EP20 oplication No.	sket no. and title of invention 16/059011, filed April 22, 2016
	<u>ASSIGNN</u>	IENT
		ciency of which are hereby acknowledged, as a esse presents hereby sell and assign, unto:
Name of Assignee:	Hilti Corporation	
Address of Assignee:	Feldkircherstrasse 100 9494 Schaan, Liechtenstein	
and to the above-identit continuations thereof, a such application or for enjoyed by said ASSIG	fied invention and United States paind in and to any and all Letters Paisaid invention, including any and a NEE, its successors or assigns to the granted as fully and entirely as	the United States, its territories and possessions in tent application, including any and all divisions or ent of the United States which may issue on any II reissues or extensions thereof, to be held and se full end of the term or terms for which any and all would have been held and enjoyed by me had this
	request the Director of the U.S. Pat SSIGNEE, its successors or assign	ent and Trademark Office to issue any and all such s in accordance herewith.
		red right to sell and assign the interests herein sold cute any document or instrument in conflict
or assigns all information and deliver any papers, acts deemed necessary perfect title to said inveall Letters Patent which ASSIGNEE, its success	on known to me relating to said inversely make all rightful oaths, testify in a condesirable by said ASSIGNEE, it intion, to said application including may be granted therefor or thereofors or assigns, or to assist said AS	d ASSIGNEE, its successors, legal representatives ention or patent application and that I will execute ny legal proceedings and perform all other lawful is successors, legal representatives or assigns to divisions and continuations thereof and to any and including reissues or extensions, in said SIGNEE, its successors, legal representatives or of the United States for said invention.
	<u>DECLARA</u>	ATION
As a below named inve	ntor, I hereby declare that:	
The above-identified ap	plication was made or authorized t	o be made by me.
I believe that I am the o	riginal inventor or an original join	inventor of a claimed invention in the application.
	hat any willful false statement mad nment of not more than five (5) ye	e in this declaration is punishable under 18 U.S.C. ars, or both.
Signature:	SCHMALHOLZ	06.11.2017 DATE

# ASSIGNMENT AND DECLARATION UNDER 37 C.F.R. § 1.63 (For Use with Signed Application Data Sheet)

Title of Invention:	Intelligent Core-Drilling End Detec	ction
the application in the properties of the propert	claration are directed to (check one) dentified above by the attorney dock al Application Number PCT/EP2016 pplication No.	ket no. and title of invention 6/059011, filed April 22, 2016
	<u>ASSIGNM</u>	ENT
		iency of which are hereby acknowledged, as a se presents hereby sell and assign, unto:
Name of Assignee:	Hilti Corporation	
Address of Assignee:	Feldkircherstrasse 100 9494 Schaan, Liechtenstein	
and to the above-identic continuations thereof, a such application or for enjoyed by said ASSIG	fied invention and United States pate and in and to any and all Letters Pate said invention, including any and all NEE, its successors or assigns to the by be granted as fully and entirely as well	the United States, its territories and possessions in ent application, including any and all divisions or ent of the United States which may issue on any l reissues or extensions thereof, to be held and e full end of the term or terms for which any and all would have been held and enjoyed by me had this
	request the Director of the U.S. Pate SSIGNEE, its successors or assigns	ent and Trademark Office to issue any and all such in accordance herewith.
I warrant and covenant and assigned and that I herewith.	that I have the full and unencumber have not executed and will not exec	red right to sell and assign the interests herein sold cute any document or instrument in conflict
I further covenant and agree that I will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to me relating to said invention or patent application and that I will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors or assigns, or to assist said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the United States for said invention.		
	<b>DECLARA</b>	<u>TION</u>
As a below named inve	entor, I hereby declare that:	
The above-identified ap	oplication was made or authorized to	be made by me.
I believe that I am the o	original inventor or an original joint	inventor of a claimed invention in the application.
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.		
Signature: Inventor: Bernh	ard LINK	07.41.17 DATE

**PATENT** 

REEL: 044603 FRAME: 0158

**RECORDED: 01/11/2018** 

# ASSIGNMENT AND DECLARATION UNDER 37 C.F.R. § 1.63

(For Use with Signed Application Data Sheet)

Title of Invention:	Intelligent Core-Drilling End Detection	
the application in PCT Internation	claration are directed to (check one): dentified above by the attorney docket no. and title of invention al Application Number PCT/EP2016/059011, filed April 22, 2016 pplication No, filed	
	<u>ASSIGNMENT</u>	
	consideration, the receipt and sufficiency of which are hereby acknowledged, as a have sold and assigned, and by these presents hereby sell and assign, unto:	
Name of Assignee:	Hilti Corporation	
Address of Assignee:	Feldkircherstrasse 100 9494 Schaan, Liechtenstein	
and to the above-identificontinuations thereof, a such application or for enjoyed by said ASSIG	E) all my right, title and interest for the United States, its territories and possessions in fied invention and United States patent application, including any and all divisions or and in and to any and all Letters Patent of the United States which may issue on any said invention, including any and all reissues or extensions thereof, to be held and ENEE, its successors or assigns to the full end of the term or terms for which any and all to be granted as fully and entirely as would have been held and enjoyed by me had this made.	
	request the Director of the U.S. Patent and Trademark Office to issue any and all such SSIGNEE, its successors or assigns in accordance herewith.	
	that I have the full and unencumbered right to sell and assign the interests herein sold have not executed and will not execute any document or instrument in conflict	
I further covenant and agree that I will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to me relating to said invention or patent application and that I will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors or assigns, or to assist said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the United States for said invention.		
	<u>DECLARATION</u>	
As a below named inve	entor, I hereby declare that:	
The above-identified ap	oplication was made or authorized to be made by me.	
	original inventor or an original joint inventor of a claimed invention in the application.	
I hereby acknowledge that any willful false statement made in this declaration is <del>punishable</del> under 18 U.S.C. 1001 by fine or imprisonment of not more than tive (5) years, or both.		
Signature: Inventor: Goran	7/h /h- 06.11.2017	