#### 504877194 04/19/2018

### PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
SHINYA IKENAGA	03/19/2018
JUNYA OKIDA	03/23/2018
MORIHIRO HIDETA	03/22/2018

### **RECEIVING PARTY DATA**

Name:	SUMITOMO ELECTRIC HARDMETAL CORP.
Street Address:	1-1, KOYAKITA 1-CHOME
City:	ITAMI-SHI, HYOGO
State/Country:	JAPAN
Postal Code:	664-0016
Name:	DMG MORI CO., LTD.
Street Address:	106, KITAKORIYAMA-CHO
City:	YAMATOKORIYAMA-SHI, NARA
State/Country:	JAPAN
Postal Code:	639-1160

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

Property Type	Number
Application Number:	15769622

#### CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: 092396.430209

**NAME OF SUBMITTER:** KAILIE MACKEVERICAN

**PATENT** REEL: 045591 FRAME: 0451 504877194

SIGNATURE:	/Kailie MacKeverican/
DATE SIGNED:	04/19/2018
Total Attachments: 4	
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PATENT REEL: 045591 FRAME: 0452

ATTORNEY DOCKET NO.

## UNITED STATES PATENT RIGHTS, OR UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

## **ASSIGNMENT**

		Application No.	Filed
Insert Name(s) of Inventor(s)	-	WHEREAS,	Shinya IKENAGA, Junya OKIDA and Morihiro HIDETA
Insert Title of Invention	•	(hereinafter designate Rotary Cutti	ted as the undersigned) has (have) invented certain new and useful improvements in ng Tool
Insert Date of Signing of Application Insert Name of Assignee	<b>→</b>	on March 19, WHEREAS,	ation for Letters Patent of the United States of America has been executed by the in the case of a provisional application).  2018, March 22, 2018 and March 23, 2018; and  (1) SUMITOMO ELECTRIC HARDMETAL CORP.  CO., LTD.
Insert Address of Assignee	-	of (1) 1-1,	Koyakita 1-chome, Itami-shi, Hyogo 664-0016 Japan koriyama-cho, Yamatokoriyama-shi, Nara 639-1160, Japan
CHECK BOX IF APPROPRIATE	<b>→</b>	desirous of acquiri Letters Patent(s) t in any and all for NOW, THERE hand paid, the rece the undersigned ha and transfer unto so of America, its terri to any and all Lette	rs, legal representatives and assigns (hereinafter designated as the Assignee) is ng the entire right, title and interest in and to said invention and in and to any hat may be granted therefor in the United States of America and preign countries.  FORE, in consideration of the sum of Ten Dollars (\$10.00) to the undersigned in sipt of which is hereby acknowledged, and other good and valuable consideration, as (have) sold, assigned and transferred, and by these presents does sell, assign aid Assignee the full and exclusive right to the said invention in the United States tories, dependencies and possessions and the entire right, title and interest in and ears Patent(s) which may be granted therefor in the United States of America, its encies and possessions, and if the box above is designated, in any and all foreign
		and to any and all o term or terms for w	divisions, reissues, continuations, conversions and extensions thereof for the full which the same may be granted.

1

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letters Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) the request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional, conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of Venable LLP 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 U.S. Patent and Trademark Office for recordation of this document.

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

(1) Date	March 19, 2018	. 1	Name of Inventor	Shinya Ikenaga Shinya IKENAGA
				Junya Okida Junya Okida
				· · · · · · · · · · · · · · · · · · ·
(4) Date		,	Name of Inventor	Morihiro HIDETA
(5) Date <sub>_</sub>		,		TOTTITIO HIDDIA
(6) Date _		,	Name of Inventor	
(7) Date _		,	Name of Inventor_	

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<i>,</i> , ,		1 /1 /		DUUNE	IVU.

# UNITED STATES PATENT RIGHTS, OR UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

## **ASSIGNMENT**

		Application No.	Filed
Insert Name(s) of Inventor(s)		WHEREAS,	Shinya IKENAGA, Junya OKIDA and Morihiro HIDETA
Insert Title of Invention	-	(hereinafter designa Rotary Cutti	ited as the undersigned) has (have) invented certain new and useful improvements in ing Tool
Insert Date of Signing of		undersigned (except	cation for Letters Patent of the United States of America has been executed by the in the case of a provisional application).
Application Insert Name	<b>→</b>	on March 19, WHEREAS.	2018, March 22, 2018 and March 23, 2018; and (1) SUMITOMO ELECTRIC HARDMETAL CORP.
of Assignee		·	CO., LTD.
Insert Address of Assignee	-	of (1) 1-1,	Koyakita 1-chome, Itami-shi, Hyogo 664-0016 Japan
	-	(2) 106, Kita	koriyama-cho, Yamatokoriyama-shi, Nara 639-1160, Japan
	-		
CHECK BOX IF APPROPRIATE		Letters Patent(s) the letters Patent (s) the letters Patent (s) the letters Patent (s) the letter Patent (s) the letter Patent (s) the letter Patent (s) the letter (s) the	FORE, in consideration of the sum of Ten Dollars (\$10.00) to the undersigned in sipt of which is hereby acknowledged, and other good and valuable consideration, is (have) sold, assigned and transferred, and by these presents does sell assign
		to any and all Lette	aid Assignee the full and exclusive right to the said invention in the United States tories, dependencies and possessions and the entire right, title and interest in and ers Patent(s) which may be granted therefor in the United States of America, its encies and possessions, and if the box above is designated, in any and all foreign
		and to any and all d term or terms for w	divisions, reissues, continuations, conversions and extensions thereof for the full thich the same may be granted.

PATENT REEL: 045591 FRAME: 0455 The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

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The undersigned hereby grant(s) the law firm of Venable LLP 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 U.S. Patent and Trademark Office for recordation of this document.

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In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

(1) Date	. ,	Name of Inventor	
		Shinya IKENAGA	
(2) Date	,	Name of Inventor	
		Junya OKIDA	
(3) Date	,	Name of Inventor	
		Name of Inventor Morihiro Hidelia  Morihiro HIDETA	
(5) Date	,	Name of Inventor	
		Name of Inventor	
7) Date	,	Name of Inventor	