505838819 12/27/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5885753

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the THIS DOCUMENT DOES NOT AFFECT TITLE. MISSING WORDING BETWEEN THE ASSIGNEE'S NAME AND THE LIST OF PATENTS HAS BEEN ADDED previously recorded on Reel 047083 Frame 0142. Assignor(s) hereby confirms the ADD: AND INTERESTS IN AND TO THE INVENTION AND IMPROVEMENTS MADE OR CONCEIVED BY US DESCRIBED IN.

CONVEYING PARTY DATA

Name	Execution Date
FRANK HARON PREISS	10/10/2019
BERNHARD SCHARFENORT	10/08/2019
LIAM MCNELIS	10/09/2019
THILO SCHARF	10/08/2019
CHRISTIAN EITSCHBERGER	10/23/2019

RECEIVING PARTY DATA

Name:	DYNAENERGETICS GMBH & CO. KG		
Street Address:	KAISERSTRASSE 3		
City:	TROISDORF		
State/Country:	GERMANY		
Postal Code:	53840		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16152933

CORRESPONDENCE DATA

Fax Number: (866)250-1636

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: 2034284420

Email:joneill@moylesip.comCorrespondent Name:MOYLES IP, LLCAddress Line 1:1 ENTERPRISE DRIVE

Address Line 2: SUITE 428

Address Line 4: SHELTON, CONNECTICUT 06484

ATTORNEY DOCKET NUMBER:DMC037US_CORRECTIVENAME OF SUBMITTER:JANELLE A. O'NEILL

PATENT 505838819 REEL: 051426 FRAME: 0840

SIGNATURE:	/Janelle A. O'Neill/	
DATE SIGNED:	12/27/2019	
Total Attachments: 14		
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PATENT REEL: 051426 FRAME: 0841

GLOBAL ASSIGNMENT

In accordance with my/our obligation(s) under any employee agreement or (as applicable) arising out of other agreements, and/or for other good and valuable consideration of which we acknowledge receipt, I/we,

Inventor First Name	Inventor Middle Name	Inventor Last Name		Residence Town	Residence County	Residence Country
Frank	Haron	Preiss	of	Bonn		DE
Bernhard		Scharfenort	of	Troisdorf		DE
Liam		McNelis	of	Bonn		DE
Thilo		Scharf	of	Letterkenny	Co. Donegal	IE
Christian		Eitschberger	of	München		DE

hereby sell and assign to:

Name of Company: DynaEnergetics GmbH & Co. KG
Address: Kaiserstrasse 3, Troisdorf, 53840, Germany

herein referred to as "Company", its successors and assigns our entire respective rights, titles and interests in and to the invention and improvements made or conceived by us described in the application(s) listed in the following table:

Country of Filing	Type of Filing	Application Number	Filing Date	Title
US	Provisional	62/683,083	06/11/2018	CONDUCTIVE DETONATING CORD FOR PERFORATING GUN
US	Utility	16/152,933	10/05/2018	CONDUCTIVE DETONATING CORD FOR PERFORATING GUN

(We hereby authorize and request the Company or its delegated attorneys or agents to insert above the application number and filing date of the application(s) when known.)

and any and all applications for patent and patents therefrom in any and all countries, including all divisions, continuations, continuations-in-part, reexaminations, renewals, and reissues thereof, and all rights of priority resulting from the filing of the application(s), and authorize and

1

request any official whose duty it is to issue patents, to issue any patent on the inventions and improvements resulting therefrom to the Company, or its successors or assigns, and agree that on request and without further consideration, we will communicate to the Company or its representatives or nominees any facts known to us respecting the inventions and improvements and testify in any legal proceeding, make all rightful oaths, sign all lawful papers and execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights in all countries including, but not limited to, any provisional, non-provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, for any derivation proceedings relating thereto, and, as to any patents that issue from such applications, for any supplemental examination, derivation proceeding, opposition, post grant review, reissue, re-examination, inter partes review, or extension thereof, and generally do everything possible to aid the Company, its successors, assigns, and nominees to obtain and enforce proper patent protection for the invention and its improvements in all countries.

Remuneration claims of the inventor(s)/assignor(s) potentially arising from German Law on Employee Inventions, or any other respective country law, remain unaffected by this assignment.

INVENTOR 1			
Signature: Frank Haron P	reiss	Date: _	10,10,19
Witnessed by: _ _	Signature Leichtweis	Date: _	10.10.19
Printed Name of			
Witnessed by:	Signature	Date: _	10.10, 20,19
)		
Printed Name of	vviiness		

Date: <u>08-10-2019</u>
Date: 8th October 2019
Date: Bth October 2018

INVENTOR 3

Sgratue *Toses Medi* Liam McNeik Vitrespectly (4)

Date:

Printed Name of Wilcoms

Vitrosond by Japanese

Date: Oct 5th 2010

Profed Name of Waress

5

INVENTOR 4

Signature: ______Thile Scharf

Date: 08-001-2019

ANNE MARIE SCHARF

Printed Name of Witness

Printed Name of Witness

Signature: Date: 23.10,19
Christian Eitschberger

Witnessed by: Signature

Date: 23.10,19

Date: 23.10,19

Date: 23.10,19

Date: 23.10,19

Date: 23.10,19

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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5175771

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
FRANK HARON PREISS	06/19/2018
BERNHARD SCHARFENORT	06/20/2018
LIAM MCNELIS	06/20/2018
THILO SCHARF	06/20/2018
CHRISTIAN EITSCHBERGER	06/20/2018

RECEIVING PARTY DATA

Name:	DYNAENERGETICS GMBH & CO. KG
Street Address:	KAISERSTRASSE 3
City:	TROISDORF
State/Country:	GERMANY
Postal Code:	53840

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Application Number:	16152933

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Fax Number: (866)250-1636

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Phone: 2034284420

Email: jbailey@moylesip.com
Correspondent Name: MOYLES IP LLC

Address Line 1: 1 ENTERPRISE DRIVE

Address Line 2: SUITE 428

Address Line 4: SHELTON, CONNECTICUT 06484

ATTORNEY DOCKET NUMBER:	DMC037US
NAME OF SUBMITTER:	JANELLE A. BAILEY
SIGNATURE:	/JANELLE A. BAILEY/
DATE SIGNED:	10/05/2018
Total Attachments: 6	•

PATENT REEL: 051426 FRAME: 0849

GLOBAL ASSIGNMENT

In accordance with my/our obligation(s) under any employee agreement or (as applicable) arising out of other agreements, and/or for other good and valuable consideration of which we acknowledge receipt, I/we,

Inventor First Name	Inventor Middle Name	Inventor Last Name		Residence Town	Residence Country
Frank	Haron	Preiss	of	Bonn	DE
Bernhard		Scharfenort	of	Troisdorf	DE
Liam		McNelis	of	Bonn	DE
Thila		Scharf	of	Letterkenny	IE
Christian		Eitschberger	of	München	DE

hereby sell and assign to:

	ţ
Name of Company: DynaEnergetics GmbH & Co. KG	
3300000	
Address: Kaiserstrasse 3, Troisdorf 53840, Germany	į

herein referred to as "Company", its successors and assigns our entire respective rights, titles the application(s) listed in the following table:

Country of Filing	Type of Filing	Application Number	Filing Date	Title
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US	Utility	16/152,933	10/05/2018	CONDUCTIVE DETONATING CORD FOR PERFORATING GUN

(We hereby authorize and request the Company or its delegated attorneys or agents to insert above the application number and filing date of the application(s) when known.)

and any and all applications for patent and patents therefrom in any and all countries, including all divisions, continuations, continuations-in-part, reexaminations, renewals, and reissues thereof, and all rights of priority resulting from the filing of the application(s), and authorize and request any official whose duty it is to issue patents, to issue any patent on the inventions and improvements resulting therefrom to the Company, or its successors or assigns, and agree that

PATENT REEL: 051426 FRAME: 0850

on request and without further consideration, we will communicate to the Company or its representatives or nominees any facts known to us respecting the inventions and improvements and testify in any legal proceeding, make all rightful oaths, sign all lawful papers and execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights in all countries including, but not limited to, any provisional, non-provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, for any derivation proceedings relating thereto, and, as to any patents that issue from such applications, for any supplemental examination, derivation proceeding, opposition, post grant review, reissue, re-examination, inter partes review, or extension thereof, and generally do everything possible to aid the Company, its successors, assigns, and nominees to obtain and enforce proper patent protection for the invention and its improvements in all countries.

Remuneration claims of the inventor(s)/assignor(s) potentially arising from German Law on Employee Inventions, or any other respective country law, remain unaffected by this assignment.

INVENTOR 1		<i>1</i>
Signature: + 1/3	Date:	6/19/18
Frank Haron Preiss		
Witnessed by: Eduin Rock	Date:	6/12/17
Signature		
Printed Name of Witness		
Witnessed by:	Date:	6/19/18
Signature Roya/AII Berger		
Printed Name of Witness		

INVENTOR 2	
Signature: 3.51	Date: 20.6.2018
Bernhard Scharfenort	
Witnessed by:	Date: <u>20^{Ct} June</u> 2018
Printed Name of Witness	
runted (value of youness	
Witnessed by: The Signature	Date: <u>70.10W-7018</u>
THILD SCHARF	
Printed Name of Witness	

INVENTOR 3		
Signature: Again Milentals	Date: Date: Date: U	1/5
Liam McNelis		***
Witnessed by: 3 SL +	Date: 20 6. 20 18	,
Bernhand Scharlewort		•
Printed Name of Witness		
Witnessed by: TWA SW Signature	Date: <u> </u>	v.
TIMILO SCHARP		
Printed Name of Witness		

PATENT 4
REEL: 051426 FRAME: 0853

Signature: Date: 70-300-7018

Thilo Scharf

Witnessed by: Signature

CAM MCNEUS

Printed Name of Witness

Witnessed by: Signature

Date: 20 June 20 / Signature

Date: 20 June 20 / Signature

Date: 20 June 20 / Signature

PATENT 5 REEL: 051426 FRAME: 0854

INVENTOR 5

Signature:

Christian Eitschberger

Witnessed by:

ssed by: <u>Janu ///u//a</u> Signature

Printed Name of Mitness

Witnessed by:

Signatu

Printed Name of Witness

ate: 20, 6.

Date: <u>20⁶³ June</u> 2018

Date: 20th 744 2018

PATENT 6 REEL: 051426 FRAME: 0855

RECORDED: 12/27/2019