12/12/2019 505818113

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5864943

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 044299 Frame 0898. Assignor(s) hereby confirms the ADD: AND INTERESTS IN AND TO THE INVENTION AND IMPROVEMENTS MADE OR CONCEIVED BY US DESCRIBED IN.	SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
	NATURE OF CONVEYANCE:	AFFECT TITLE. MISSING WORDING BETWEEN THE ASSIGNEE'S NAME AND THE LIST OF PATENTS HAS BEEN ADDED previously recorded on Reel 044299 Frame 0898. Assignor(s) hereby confirms the ADD: AND INTERESTS IN AND TO THE INVENTION AND

CONVEYING PARTY DATA

Name	Execution Date
JOERN OLAF LOEHKEN	10/08/2019

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:	15831830

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.

2034284420 Phone:

Email: joneill@moylesip.com MOYLES IP, LLC **Correspondent Name:** 1 ENTERPRISE DRIVE Address Line 1:

Address Line 2: **SUITE 428**

Address Line 4: SHELTON, CONNECTICUT 06484

ATTORNEY DOCKET NUMBER:	DMC026USCON1_CORRECTIVE	
NAME OF SUBMITTER:	JANELLE A. O'NEILL	
SIGNATURE:	/Janelle A. O'Neill/	
DATE SIGNED:	12/12/2019	

Total Attachments: 6

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PATENT REEL: 051340 FRAME: 0576

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PATENT REEL: 051340 FRAME: 0577

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
Joern	Olaf	Loehken	of	Troisdorf	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	62/445,672	1/12/2017	SHAPED CHARGE LINER, METHOD OF MAKING SAME, AND SHAPED CHARGE INCORPORATING SAME
US	Provisional	62/488,182	4/21/2017	SHAPED CHARGE LINER, METHOD OF MAKING SAME, AND SHAPED CHARGE INCORPORATING SAME
US	Utility	15/499,408	4/27/2017	SHAPED CHARGE LINER, METHOD OF MAKING SAME, AND SHAPED CHARGE INCORPORATING SAME
US	Utility	15/831,830	12/05/2017	SHAPED CHARGE LINER, METHOD OF MAKING SAME, AND SHAPED CHARGE INCORPORATING SAME

(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 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

 Date: 2184 7019

Date

ate: <u>01,8th 2015</u>

Witnessed by:

.

Signature

Printed Name of Witness

Witnessed by:

Date: Ot 8th 2015

Printed Name of Witness

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4718284

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JOERN OLAF LOEHKEN	04/26/2017

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:	15831830

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: 2038704024

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

Address Line 1: 970 BEAVER DAM ROAD

Address Line 4: STRATFORD, CONNECTICUT 06614

ATTORNEY DOCKET NUMBER:	DMC026USCON
NAME OF SUBMITTER:	JANELLE A. BAILEY
SIGNATURE:	/Janelle A. Bailey/
DATE SIGNED:	12/05/2017

Total Attachments: 2

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PATENT REEL: 051340 FRAME: 0581

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 State	Residence Country
Joern	Olaf	Loehken	of	Troisdorf		Germany

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 the application(s) listed in the following table:

Country of Filing	Type of Filing	Application No.	Filing	Title
			Date	
US	Provisional	62/445,672	1/12/2017	SHAPED CHARGE LINER, METHOD
				OF MAKING SAME, AND SHAPED
				CHARGE INCORPORATING SAME
US	Provisional	62/488,182	4/21/2017	SHAPED CHARGE LINER, METHOD
				OF MAKING SAME, AND SHAPED
				CHARGE INCORPORATING SAME
US	Utility	15/499,408	4/27/2017	SHAPED CHARGE LINER, METHOD
				OF MAKING SAME, AND SHAPED
				CHARGE INCORPORATING SAME
US	Utility	15/831,830	12/05/2017	SHAPED CHARGE LINER AND
				SHAPED CHARGE INCORPORATING
				SAME

(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.)

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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 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 caths, 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 sessignment.

INVENTOR 1

Signature CALL

Joern Olar Loehken Date 26 4 2017

Witnessed by Signature Date 1/04 26 /2017

Witnessed by Signature Date 1/04 26 /2017

Witnessed by Signature Date 1/04 26 /2017