

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4142345

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	LONGYEAR TM, INC.	11/14/2016
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	U.S. BANK NATIONAL ASSOCIATION	
<b>Street Address:</b>	170 SOUTH MAIN ST., STE 200	
<b>City:</b>	SALT LAKE CITY	
<b>State/Country:</b>	UTAH	
<b>Postal Code:</b>	84101	
<b>PROPERTY NUMBERS Total: 7</b>		
<b>Property Type</b>	<b>Number</b>	
<b>Patent Number:</b>	9399898	
<b>Patent Number:</b>	9404311	
<b>Patent Number:</b>	9421671	
<b>Patent Number:</b>	9446503	
<b>Application Number:</b>	15232452	
<b>Application Number:</b>	15303668	
<b>PCT Number:</b>	US1653703	
<b>CORRESPONDENCE DATA</b>		
<b>Fax Number:</b>		
<i>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.</i>		
<b>Phone:</b>	7043778156	
<b>Email:</b>	jcarusone@robinsonbradshaw.com	
<b>Correspondent Name:</b>	JENNIFER CARUSONE	
<b>Address Line 1:</b>	101 N. TRYON ST., SUITE 1900	
<b>Address Line 2:</b>	ROBINSON, BRADSHAW & HINSON, P.A.	
<b>Address Line 4:</b>	CHARLOTTE, NORTH CAROLINA 28246	
<b>ATTORNEY DOCKET NUMBER:</b>	19133.00049	
<b>NAME OF SUBMITTER:</b>	JENNIFER CARUSONE	
<b>SIGNATURE:</b>	/Jennifer Carusone/	
<b>DATE SIGNED:</b>	11/15/2016	

PATENT

**Total Attachments: 4**

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## Patent Security Agreement

**Patent Security Agreement**, dated as of \_\_\_\_\_, 2016 by LONGYEAR TM, INC. (the "Grantor"), in favor of U.S. BANK NATIONAL ASSOCIATION, in its capacity as collateral agent pursuant to the Indenture (in such capacity, the "Collateral Agent").

### WITNESSETH:

WHEREAS, the Grantor is party to a U.S. Security and Pledge Agreement dated as of September 27, 2013 (as amended, amended and restated, supplemented or otherwise modified from time to time, the "Security Agreement") in favor of the Collateral Agent pursuant to which the Grantor is required to execute and deliver this Patent Security Agreement;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Grantor hereby agrees with the Collateral Agent as follows:

SECTION 1. Defined Terms. Unless otherwise defined herein, terms defined in the Security Agreement and used herein have the meaning given to them in the Security Agreement.

SECTION 2. Grant of Security Interest in Patent Collateral. The Grantor hereby pledges and grants to the Collateral Agent for the benefit of the Secured Parties a lien on and security interest in and to all of its right, title and interest in, to and under all the following Collateral of the Grantor:

- (a) Patents of the Grantor listed on Schedule I attached hereto; and
- (b) all Proceeds of any and all of the foregoing (other than Excluded Assets).

SECTION 3. Security Agreement. The security interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interest granted to the Collateral Agent pursuant to the Security Agreement and Grantor hereby acknowledges and affirms that the rights and remedies of the Collateral Agent with respect to the security interest in the Patents made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. In the event that any provision of this Patent Security Agreement is deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall control unless the Collateral Agent shall otherwise determine.

SECTION 4. Termination. Upon the payment in full of the Secured Obligations and termination of the Security Agreement, the Collateral Agent shall execute, acknowledge, and deliver to the Grantor an instrument in writing in recordable form releasing the collateral pledge, grant, assignment, lien and security interest in the Patents under this Patent Security Agreement.

SECTION 5. Counterparts. This Patent Security Agreement may be executed in any number of counterparts, all of which shall constitute one and the same instrument, and any party hereto may execute this Patent Security Agreement by signing and delivering one or more counterparts.

SECTION 6. Subject to Intercreditor Agreement. Notwithstanding anything herein to the contrary, the liens and security interests granted to U.S. Bank National Association, as Collateral Agent, pursuant to this Patent Security Agreement and the exercise of any right or remedy by U.S. Bank National Association, as Collateral Agent hereunder, are subject to the provisions of the Intercreditor Agreement dated as of September 27, 2013 (as amended, restated, supplemented or otherwise modified from time to time, the "Intercreditor Agreement"), among Bank of America, N.A., as the Bank Collateral Agent, U.S. Bank National Association, as Trustee and as Notes Collateral Agent, and acknowledged and consented to by the Grantor (as defined in the Intercreditor Agreement) from time to time party thereto. In the event of any conflict between the terms of the Intercreditor Agreement and the terms of this Agreement, the terms of the Intercreditor Agreement shall govern and control.

[signature page follows]

IN WITNESS WHEREOF, the Grantor has caused this Patent Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

Very truly yours,

LONGYEAR TM, INC.

By:   
Name: Fabrizio Rasetti  
Title: President

**SCHEDULE I**  
**to**  
**PATENT SECURITY AGREEMENT**

**PATENT REGISTRATIONS AND PATENT APPLICATIONS**

**Patents**

<b><u>Patent No.</u></b>	<b><u>Country</u></b>	<b><u>Title</u></b>	<b><u>Owner</u></b>	<b><u>Issue Date</u></b>
9,399,898	US	Core Drilling Tools with Retractable Lockable Driven Latch Mechanisms	Longyear TM, Inc.	26-Jul-16
9,404,311	US	Fiber-Containing Diamond-Impregnated Cutting Tools And Methods Of Forming And Using Same	Longyear TM, Inc.	02-Aug-16
9,421,671	US	Infiltrated Diamond Wear Resistant Bodies and Tools	Longyear TM, Inc.	23-Aug-16
9,446,503	US	High-Strength, High-Hardness Binders and Drilling Tools Formed Using the Same	Longyear TM, Inc.	20-Sep-16

**Patent Applications**

<b><u>Patent Serial No.</u></b>	<b><u>Country</u></b>	<b><u>Title</u></b>	<b><u>Owner</u></b>	<b><u>Application Filing Date</u></b>
15/232,452	US	Infiltrated Diamond Wear Resistant Bodies and Tools	Longyear TM, Inc	09-Aug-16
15/303,668	US	Drill Bits Having Flushing	Longyear TM, Inc	12-Oct-16

**PCT Patent Applications**

<b><u>Patent Serial No.</u></b>	<b><u>PCT Filing Date</u></b>	<b><u>Title</u></b>	<b><u>Owner</u></b>	<b><u>30 Mo. Natl Date</u></b>
PCT/US2016/53703	09/26/16	Braking Devices for Drilling Operations and Systems and Methods of Using Same	Longyear TM, Inc	03/30/18

[U.S. Patent Security Agreement—10% Senior Secured Notes due 2018]

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**RECORDED: 11/15/2016**

**PATENT**  
**REEL: 040319 FRAME: 0127**