505533956 06/19/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHRISTOPHER KIRKPATRICK	12/23/2015

RECEIVING PARTY DATA

Name:	GOODRICH CORPORATION	
Street Address:	FOUR COLISEUM CENTRE	
Internal Address:	2730 WEST TYVOLA ROAD	
City:	CHARLOTTE	
State/Country:	NORTH CAROLINA	
Postal Code:	28217-4578	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16446178

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	63838.15517 / 91408US02	
NAME OF SUBMITTER:	GREGG S SCHEIFERSTEIN	
SIGNATURE:	/Gregg S Scheiferstein/	
DATE SIGNED:	06/19/2019	

Total Attachments: 2

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PATENT 505533956 REEL: 049523 FRAME: 0952

WHEREAS, the undersigned inventor(s) (hereinafter singly and collectively, "ASSIGNOR") of the addresses indicated below, have invented subject matter disclosed and/or claimed in the patent application entitled NEEDLED BRAKE DISKS AND METHODS filed herewith;

AND WHEREAS, GOODRICH CORPORATION (hereinafter "ASSIGNEE"), a corporation organized and existing under and by virtue of the laws of the State of New York having its principal place of business and mailing address at Four Coliseum Centre, 2730 West Tyvola Road, Charlotte, NC 28217-4578 is desirous of memorializing its interest therein;

NOW, THEREFORE, the undersigned ASSIGNOR hereby confirms that ASSIGNOR is an employee, salaried employee, past employee or a contractor of ASSIGNEE and that ASSIGNOR developed the subject matter of the inventions on ASSIGNEE's time and at the expense of ASSIGNEE and within the scope of ASSIGNOR's duties to ASSIGNEE and thereby ASSIGNOR recognizes that the ASSIGNEE owns the inventions as described in the aforesaid application. Nonetheless to comport with Patent Office procedures, ASSIGNOR memorializes that relationship in the form of this assignment and;

THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR by these presents does sell, assign and transfer unto ASSIGNEE, its successors, assigns and legal representatives, the full and exclusive right to the inventions, as described in the aforesaid application, including patent, copyright and any other intellectual property rights, any provisional, non-provisional, continuation, continuation in part, divisional, reissue, reexamination, foreign, PCT or other patent application or like document, or any other application which claims priority to said application, including the rights to sue for all past and future causes of action related to said inventions, in the United States and all foreign countries, together with the right of priority under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States adheres, and hereby authorizes and requests the Commissioner of Patents to issue said Letters Patent to ASSIGNEE, for the sole use and benefit of ASSIGNEE, its successors, assigns and legal representatives,

AND HEREBY AGREES to transfer to ASSIGNEE, its successors, assigns and legal representatives, without further remuneration, a like interest in and to any improvements, related new matter, and derivative works, and applications based thereon, growing out of or relating to the inventions; and to provide all reasonable assistance and execute any papers, if accurate, desired by ASSIGNEE, its successors, assigns and legal representatives, to preserve, acquire and/or perfect ASSIGNEE's full protection and title in and to the inventions and any improvements and to file any of the aforementioned applications.

In the event that the Application Number and/or filing date is not available when this Assignment is executed, I hereby authorize and request any attorney associated with Snell &

PATENT REEL: 049523 FRAME: 0953 Wilmer L.L.P., Customer No. 85628, to insert in this assignment the filing date and/or the application number of said application and/or any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

EXECUTED as of the date(s) written below by ASSIGNOR:

INVENTOR'S NAME/ADDRESS

DATE

Christopher Kirkpatrick 2136 W. Tejon Way

Pueblo West, CO 81007

SNELL & WILMER L.L.P.

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