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PATENT REEL: 014259 FRAME: 0050

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: James N. Buttrick, Jr. Attorney Docket No. BING-1-1006

Serial No.: not yet assigned Group Art Unit: not yet assigned

Filing Date: June 25, 2003 Examiner: not yet assigned

Title: APPARATUS AND METHODS FOR SERVO-CONTROLLED

MANUFACTURING OPERATIONS

ASSIGNMENT

WHEREAS, I, James N. Buttrick, Jr., residing at 8015 Ridge Dr. NE, Seattle, WA 98115, am the inventor named in the above-identified United States patent application;

AND, WHEREAS, The Boeing Company, a Delaware corporation having a principal address at 7755 East Marginal Way South, Seattle, WA 98108 (hereinafter referred to as ASSIGNEE), is desirous of acquiring the entire right, title, and interest in and to the patent application and related inventions;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, I hereby assign and transfer to ASSIGNEE the entire right, title, and interest in and to the patent application and related inventions, including all improvements, variations, derivations and inventive subject matter directly or indirectly related to the patent application and inventions, and all provisional or nonprovisional patent applications or issued patents that have been or may be granted thereon, including without limitation all reissues, divisions, continuations, continuations-in-part, and extensions of the patent applications or patents, or any other form of protection for the inventions related to the patent application, in the United States and foreign countries; all rights of action arising from the inventions and all applications and patents on the inventions, and the right to sue and collect damages for such infringement; to be

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held and enjoyed by the ASSIGNEE for its own use and benefit and for its successors and assigns as the same would have been held by me had this assignment not been made.

I do hereby further agree and promise to execute all instruments and render all such assistance as ASSIGNEE may request in order to make and prosecute any and all applications on the inventions, to maintain and enforce any and all patents on the inventions, and to confirm in ASSIGNEE legal title to the inventions and all applications and patents on the inventions in the United States and foreign countries, all without charge to ASSIGNEE but at no expense to me. In the event that ASSIGNEE is unable for any reason, after reasonable effort, to secure my signature on any document needed in connection with the actions specified in this paragraph, or to otherwise perfect in ASSIGNEE the entire right, title, and interest in and to the patent application and related inventions, I hereby irrevocably designate and appoint the ASSIGNEE and its duly authorized officers and agents as my agent and attorney-in-fact, to act for and in my behalf to execute, verify and file any such documents and to do all other lawfully permitted acts to further the purposes of this assignment with the same legal force and effect as if executed by me. I hereby waive and quitclaim to the ASSIGNEE any and all claims, of any nature whatsoever, which I now or may hereafter have for infringement of any proprietary rights assigned to the ASSIGNEE.

EXECUTED at Every (city), WASHINGTON (state), this 4th day of June 1, 2003.

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816 Second Avenue

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APPARATUS AND METHODS FOR SERVO-CONTROLLED MANUFACTURING OPERATIONS

INVENTOR James N. Buttrick, Jr.

CROSS REFERENCE TO RELATED APPLICATIONS

This patent application is related to co-pending, commonly-owned U.S. Patent Application 10/016,524 entitled "Flexible Track Drilling Machine" filed December 10, 2001, and to the following concurrently-filed, commonly-owned U.S. patent applications: "Methods and Apparatus for Counterbalance-Assisted Manufacturing Operations" bearing attorney docket number BING-1-1002, "Apparatus and Methods for Manufacturing Operations Using Opposing-Force Support Systems" bearing attorney docket number BING-1-1003, "Methods and Apparatus for Track Members Having a Neutral-Axis Rack" bearing attorney docket number BING-1-1004, and "Apparatus and Methods for Manufacturing Operations Using Non-Contact Position Sensing" bearing attorney docket number BING-1-1005.

FIELD OF THE INVENTION

The present disclosure relates to apparatus and methods for servo-controlled manufacturing operations, and more specifically, to servo-controlled track drilling operations.

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