UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-A

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

Mitcham Industries, Inc.

(Exact name of registrant as specified in its charter)

Texas (State or other jurisdiction of incorporation) 76-0210849 (I.R.S. Employer Identification No.)

8141 SH 75 South, P.O. Box 1175, Huntsville, Texas (Address of principal executive offices) 77342 (Zip Code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of each class to be so registered 9.00% Series A Cumulative Preferred Stock Name of each exchange on which each class is to be registered The NASDAQ Stock Market LLC

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A. (c), check the following box.

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A. (d), check the following box.

Securities Act registration statement file number to which this form relates: 333-208177

Securities to be registered pursuant to Section 12(g) of the Act:

None

INFORMATION REQUIRED IN REGISTRATION STATEMENT

Item 1. Description of Registrant's Securities to be Registered

The securities to be registered hereby are the 9.00% Series A Cumulative Preferred Stock (the "Series A Preferred Stock") of Mitcham Industries, Inc. (the "Registrant"). The description of the Series A Preferred Stock is contained in the section captioned "Description of the Series A Preferred Stock" in the Registrant's prospectus included in the Registrant's registration statement on Form S-1 (File No. 333-208177), initially filed with the Securities and Exchange Commission on November 23, 2015 under the Securities Act of 1933, as amended, and will be set forth in any prospectus filed in accordance with Rule 424(b) thereunder, which description is incorporated herein by reference.

Item 2. Exhibits

Exhibit No.	Description
3.1	Amended and Restated Articles of Incorporation of the Registrant, as currently in effect (filed as Exhibit 3.1 to the Registrant's Registration Statement on Form S-8 on August 9, 2001, and incorporated herein by reference).
3.2	Third Amended and Restated Bylaws of the Registrant (filed as Exhibit 3.1(i) to the Registrant's Current Report on Form 8-K on August 2, 2010, and incorporated herein by reference).
3.3	Form of Certificate of Designations of the 9.00% Series A Cumulative Preferred Stock (filed as Exhibit 3.3 to the Registrant's Amendment No. 3 to Form S-1 filed on May 13, 2016, and incorporated herein by reference).

4.1 Form of Certificate representing 9.00% Series A Cumulative Preferred Stock.

SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

Mitcham Industries, Inc.

By: /s/ Robert P. Capps

Name: Robert P. Capps Title: Co-Chief Executive Officer, Executive Vice President-Finance and Chief Financial Officer

June 2, 2016

EXHIBIT INDEX

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4.1 Form of Certificate representing 9.00% Series A Cumulative Preferred Stock.

FORM OF SERIES A CUMULATIVE PREFERRED GLOBAL STOCK CERTIFICATE

Mitcham Industries, Inc.

Incorporated under the Laws of the State of Texas

CUSIP: 606501 302 CERTIFICATE NUMBER: 001

[____] SHARES

This represents and certifies that CEDE & CO is the owner of [_____] fully paid and non-assessable shares of Series A Cumulative Preferred Stock of **Mitcham Industries, Inc.** (the "Company"), par value \$1.00 per share, transferable upon the books of the Company by the holder hereof in person or by the holder's duly authorized attorney upon surrender of this certificate properly endorsed. This certificate and the shares represented hereby are issued and shall be held subject to all of the provisions of the Amended and Restated Articles of Incorporation and all amendments thereto and the Certificate of Designations, Preferences and Rights of the Series A Cumulative Preferred Stock and all amendments thereto (copies of which will be provided, free of charge, upon written to the Company's principal office by the holder hereof), to which the holder hereof by acceptance hereof expressly assents.

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION ("DTC"), TO THE COMPANY OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO., OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL IN AS MUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

TRANSFERS OF THIS GLOBAL PREFERRED STOCK SHALL BE LIMITED TO TRANSFERS IN WHOLE, BUT NOT IN PART, TO NOMINEES OF DTC OR TO A SUCCESSOR THEREOF OR SUCH SUCCESSOR'S NOMINEE.

IN CONNECTION WITH ANY TRANSFER, THE HOLDER WILL DELIVER TO THE REGISTRAR AND TRANSFER AGENT SUCH CERTIFICATES AND OTHER INFORMATION AS SUCH REGISTRAR AND TRANSFER AGENT MAY REASONABLY REQUIRE.

DATED: [____], 2016

IN WITNESS WHEREOF, Mitcham Industries, Inc. has executed this Certificate as of the date set forth above.

MITCHAM INDUSTRIES, INC.

By:

Name:Robert P. CappsTitle:Co-Chief Executive Officer and Chief Financial
Officer

By:

Name: Pam J. Plagens Title: Corporate Secretary

SIGNATURE PAGE TO MITCHAM INDUSTRIES, INC. SERIES A CUMULATIVE PREFERRED GLOBAL STOCK CERTIFICATE

TRANSFER AGENT'S CERTIFICATE OF AUTHENTICATION

This is one of the certificates representing shares of Preferred Stock referred to in the within mentioned Certificate of Designations.

American Stock Transfer & Trust Company, LLC

as Transfer Agent

By:

Name: Title:

TRANSFER AGENT'S CERTIFICATE OF AUTHENTICATION MITCHAM INDUSTRIES, INC. SERIES A CUMULATIVE PREFERRED GLOBAL STOCK CERTIFICATE

REVERSE OF THE SECURITY

ASSIGNMENT

For Value Received, _______ hereby sells, assigns and transfers unto _______ (print or typewrite name, address and social security or other identifying number of assignee) _______ Shares of the stock represented by this Certificate, and does hereby irrevocably constitute and appoint _______ attorney, to transfer the said stock on the books of the within named company with full power of substitution in the premises

Dated:

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NOTICE: The signature to this assignment must correspond with the name as written upon the face of this certificate in every particular, without alteration or enlargement or any change whatever.

SIGNATURE GUARANTEED

NOTICE: The signature(s) should be guaranteed by an eligible guarantor institution (banks, stockbrokers, savings and loan associations, and credit unions with membership in an approved signature guarantee medallion program), pursuant to Rule 17 Ad-15 under the Securities Exchange Act of 1934.