

SCHEDULE 13G

Amendment No.
Mitcham Industries Incorporated
Common Stock
Cusip # 606501104

Cusip # 606501104
Item 1: Reporting Person - FMR Corp. - (Tax ID: 04-2507163)
Item 4: Commonwealth of Massachusetts
Item 5: None
Item 6: None
Item 7: 446,500
Item 8: None
Item 9: 446,500
Item 11: 10.00%
Item 12: HC

Cusip # 606501104
Item 1: Reporting Person - Edward C. Johnson 3d
Item 4: United States of America
Item 5: None
Item 6: None
Item 7: 446,500
Item 8: None
Item 9: 446,500
Item 11: 10.00%
Item 12: IN

Cusip # 606501104
Item 1: Reporting Person - Abigail P. Johnson
Item 4: United States of America
Item 5: None
Item 6: None
Item 7: 446,500
Item 8: None
Item 9: 446,500
Item 11: 10.00%
Item 12: IN

SCHEDULE 13G - TO BE INCLUDED IN STATEMENTS
FILED PURSUANT TO RULE 13d-1(b) or 13d-2(b)

Item 1(a). Name of Issuer:
Mitcham Industries Incorporated

Item 1(b). Name of Issuer's Principal Executive Offices:
44000 Highway 75 South,
Huntsville, TX 77340

Item 2(a). Name of Person Filing:
FMR Corp.

Item 2(b). Address or Principal Business Office or, if None, Residence:
82 Devonshire Street, Boston, Massachusetts 02109

Item 2(c). Citizenship:
Not applicable

Item 2(d). Title of Class of Securities:
Common Stock

Item 2(e). CUSIP Number:

Item 3. This statement is filed pursuant to Rule 13d-1(b) or 13d-2(b) and the person filing, FMR Corp., is a parent holding company in accordance with Section 240.13d-1(b)(ii)(G). (Note: See Item 7).

Item 4. Ownership

- (a) Amount Beneficially Owned:
446,500
- (b) Percent of Class:
10.00%
- (c) Number of shares as to which such person has:
 - (i) sole power to vote or to direct the vote:
None
 - (ii) shared power to vote or to direct the vote:
None
 - (iii) sole power to dispose or to direct the disposition of:
446,500
 - (iv) shared power to dispose or to direct the disposition of:
None

Item 5. Ownership of Five Percent or Less of a Class.

Not applicable.

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Various persons have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the common stock of Mitcham Industries Incorporated. The interest of one person, Fidelity Low-Priced Stock Fund, an investment company registered under the Investment Company Act of 1940, in the common stock of Mitcham Industries Incorporated, amounted to 264,000 shares or 5.91% of the total outstanding common stock at December 31, 1996.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company.

See attached Exhibit(s) A and B.

Item 8. Identification and Classification of Members of the Group.

Not applicable, see attached Exhibit A.

Item 9. Notice of Dissolution of Group.

Not applicable.

Item 10. Certification.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired in the ordinary course of business and were not acquired for the purpose of and do not have the effect of changing or influencing the control of the issuer of such securities and were not acquired in connection with or as a participant in any transaction having such purpose or effect.

Signature

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this Schedule 13G in connection with FMR Corp.'s beneficial ownership of the common stock of Mitcham Industries Incorporated at December 31, 1996 is true, complete and correct.

February 14, 1997

Date

/s/Arthur S. Loring

Signature

Arthur S. Loring, Vice

President

Name/Title

SCHEDULE 13G - TO BE INCLUDED IN STATEMENTS
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Pursuant to the instructions in Item 7 of Schedule 13G, Fidelity Management & Research Company ("Fidelity"), 82 Devonshire Street, Boston, Massachusetts 02109, a wholly-owned subsidiary of FMR Corp. and an investment adviser registered under Section 203 of the Investment Advisers Act of 1940, is the beneficial owner of 446,500 shares or 10.00% of the common stock outstanding of Mitcham Industries Incorporated ("the Company") as a result of acting as investment adviser to various investment companies registered under Section 8 of the Investment Company Act of 1940.

The ownership of one investment company, Fidelity Low-Priced Stock Fund, amounted to 264,000 shares or 5.91% of the common stock outstanding. Fidelity Low-Priced Stock Fund has its principal business office at 82 Devonshire Street, Boston, Massachusetts 02109.

Edward C. Johnson 3d, FMR Corp., through its control of Fidelity, and the funds each has sole power to dispose of the 446,500 shares owned by the Funds.

Neither FMR Corp. nor Edward C. Johnson 3d, Chairman of FMR Corp., has the sole power to vote or direct the voting of the shares owned directly by the Fidelity Funds, which power resides with the Funds' Boards of Trustees. Fidelity carries out the voting of the shares under written guidelines established by the Funds' Boards of Trustees.

Members of the Edward C. Johnson 3d family and trusts for their benefit are the predominant owners of Class B shares of common stock of FMR Corp., representing approximately 49% of the voting power of FMR Corp. Mr. Johnson 3d owns 12.0% and Abigail Johnson owns 24.5% of the aggregate outstanding voting stock of FMR Corp. Mr. Johnson 3d is Chairman of FMR Corp. and Abigail P. Johnson is a Director of FMR Corp. The Johnson family group and all other Class B shareholders have entered into a shareholders' voting agreement under which all Class B shares will be voted in accordance with the majority vote of Class B shares. Accordingly, through their ownership of voting common stock and the execution of the shareholders' voting agreement, members of the Johnson family may be deemed, under the Investment Company Act of 1940, to form a controlling group with respect to FMR Corp.

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FILED PURSUANT TO RULE 13d-1(b) or 13d-2(b)
RULE 13d-1(f)(1) AGREEMENT

The undersigned persons, on February 14, 1997, agree and consent to the joint filing on their behalf of this Schedule 13G in connection with their beneficial ownership of the common stock of Mitcham Industries Incorporated at December 31, 1996.

FMR Corp.

By /s/Arthur S. Loring

Arthur S. Loring

Vice President - Legal

Edward C. Johnson 3d

By /s/Arthur S. Loring

Arthur S. Loring

Under Power of Attorney dated

5/17/89

On File with Schedule 13G for
Airborne Freight Corp. 9/10/91

Abigail P. Johnson

By /s/Arthur S. Loring

Arthur S. Loring

Under Power of Attorney dated

1/5/96

On File with Schedule 13G for

Acclaim Entertainment Inc.

1/10/96

Fidelity Management & Research Company

By /s/Arthur S. Loring

Arthur S. Loring

Sr. V.P. and General Counsel

Fidelity Low-Priced Stock Fund

By /s/Arthur S. Loring

Arthur S. Loring

Secretary