UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 5 ON FORM S-3 TO FORM S-4

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

TRANSOCEAN INC.

(Exact name of registrant as specified in its charter)

Cayman Islands (State or other jurisdiction of incorporation or organization) 66-0582307 (I.R.S. Employer Identification No.)

4 Greenway Plaza Houston, Texas 77046 (713) 232-7500

70 Harbour Drive Grand Cayman, Cayman Islands KY1-1003 (345) 745-4500

 $(Address, including\ zip\ code,\ and\ telephone\ number,\ including\ area\ code,\ of\ registrant's\ principal\ executive\ offices)$

Eric B. Brown
Senior Vice President and General Counsel
Transocean Inc.
4 Greenway Plaza
Houston, Texas 77046
(713) 232-7500

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy to:
Gene J. Oshman
John D. Geddes
Baker Botts L.L.P.
One Shell Plaza
910 Louisiana Street
Houston, Texas 77002
(713) 229-1234

| Approximate date of commencement of proposed sale to the public: Not applicable. |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. \Box |
| If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. \Box |
| If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act of 1933, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box |
| If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act of 1933, check the following box and list the Securities Act |

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. \Box

registration statement number of the earlier effective registration statement for the same offering. \Box

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. \Box

| Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one): | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------------------------|------------------------------------------------------------------|--|
| Large accelerated filer $oxtimes$ | Accelerated filer \square | Non-accelerated filer \Box (Do not check if | Smaller reporting company \square a smaller reporting company) | |
| This Post-Effective Amendment No. 5 on Form S-3 to the Registration Statement on Form S-4 (Registration No. 333-46374) shall become effective in accordance with Section 8(c) of the Securities Act of 1933 on such date as the Securities and Exchange Commission, acting pursuant to Section 8(c), may determine. | | | | |
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REMOVAL OF SECURITIES FROM REGISTRATION

This Post-Effective Amendment No. 5 on Form S-3 (the "Post-Effective Amendment") relates to Post-Effective Amendment No. 3 on Form S-3 to the Registration Statement on Form S-4 (Registration No. 333-46374) (the "Registration Statement") covering ordinary shares, par value \$.01 per share (the "Ordinary Shares"), of Transocean Inc., a company organized under the laws of the Cayman Islands ("Transocean-Cayman"), issuable upon exercise of warrants to purchase Ordinary Shares (the "Warrants").

On January 31, 2001, pursuant to an Agreement and Plan of Merger dated as of August 19, 2000 by and among Transocean-Cayman, Transocean Holdings Inc., a Delaware corporation and direct, wholly-owned subsidiary of Transocean-Cayman ("Sub"), TSF Delaware Inc., a Delaware corporation and direct, wholly-owned subsidiary of Sub ("Merger Sub"), and R&B Falcon Corporation, a Delaware corporation ("R&B Falcon"), among other things:

- Merger Sub was merged into R&B Falcon (the "RBF Merger"), as a result of which R&B Falcon became a wholly-owned subsidiary of Sub,
- each outstanding share of common stock, par value \$0.01 per share, of R&B Falcon ("R&B Falcon Common Stock") was converted into the right to receive 0.5 Ordinary Shares,
- Transocean-Cayman assumed R&B Falcon's obligations under certain stock incentive plans of R&B Falcon (the "Plans"), and Ordinary Shares became purchasable or otherwise issuable thereunder in lieu of R&B Falcon Common Stock, and
- the Warrants were deemed issued pursuant to Transocean-Cayman's assumption of warrants to purchase shares of R&B Falcon Common Stock.

The Registration Statement, when it originally became effective, covered (1) Ordinary Shares issuable in connection with the RBF Merger, (2) Ordinary Shares issuable pursuant to the Plans, (3) Warrants that were deemed issued in connection with the RBF Merger pursuant to Transocean-Cayman's assumption of warrants to purchase shares of R&B Falcon Common Stock and (4) Ordinary Shares issuable upon exercise of the Warrants.

Post-Effective Amendment No. 1 on Form S-8 to the Registration Statement covered 8,659,804 Ordinary Shares to be offered and sold pursuant to the Plans, including 567,587 Ordinary Shares to be offered and sold pursuant to the R&B Falcon Savings Plan.

In accordance with an undertaking made by Transocean-Cayman in the Registration Statement to remove from registration, by means of a post-effective amendment, any of the securities which remain unsold at the termination of the offering, Transocean-Cayman deregistered, by means of Post-Effective Amendment No. 2 on Form S-8 to the Registration Statement filed on June 17, 2003, all Ordinary Shares registered thereunder which were issuable under the R&B Falcon Savings Plan and which remained unsold as of June 17, 2003 and all interests in the R&B Falcon Savings Plan.

Post-Effective Amendment No. 2 on Form S-8 to the Registration Statement related only to the Ordinary Shares issuable pursuant to the R&B Falcon Savings Plan and did not relate to (1) Ordinary Shares issuable in connection with the RBF Merger, (2) Warrants that were deemed issued in connection with the RBF Merger pursuant to Transocean-Cayman's assumption of warrants to purchase shares of R&B Falcon Common Stock, (3) Ordinary Shares issuable upon exercise of the Warrants and (4) Ordinary Shares issuable pursuant to the other Plans. Post-Effective Amendment No. 1 on Form S-8 to the Registration Statement related only to the Ordinary Shares issuable pursuant to the Plans. Accordingly, after Post-Effective Amendment No. 2 was filed, the Registration Statement continued to cover the (1) Ordinary Shares issuable in connection with the RBF Merger, (2) Warrants that were deemed issued in connection with the RBF Merger pursuant to Transocean-Cayman's assumption of warrants to purchase shares of R&B Falcon Common Stock and (3) Ordinary Shares issuable upon exercise of the Warrants, and the Registration Statement (as amended by Post-Effective Amendment No. 1 thereto) continued to cover the Ordinary Shares issuable pursuant to the other Plans.

Post-Effective Amendment No. 3 on Form S-3 to the Registration Statement related only to the Ordinary Shares issuable upon exercise of the Warrants and did not relate to, and the Registration Statement (as amended by Post-Effective Amendments No. 1 and 2 thereto) continued to cover, (1) Ordinary Shares issuable in connection with the RBF Merger, (2) Warrants that were deemed issued in connection with the RBF Merger pursuant to

Transocean-Cayman's assumption of warrants to purchase shares of R&B Falcon Common Stock and (3) Ordinary Shares issuable pursuant to the Plans.

Post-Effective Amendment No. 4 on Form S-8 to the Registration Statement related only to Registered Shares issuable pursuant to the Plans and did not relate to (1) Ordinary Shares issuable in connection with the RBF Merger, (2) Ordinary Shares issuable upon exercise of the Warrants and (3) Warrants that were deemed issued in connection with the RBF Merger pursuant to Transocean-Cayman's assumption of warrants to purchase shares of R&B Falcon Common Stock.

On December 18, 2008, Transocean-Cayman merged by way of schemes of arrangement under Cayman Islands law with Transocean Cayman Ltd., a wholly-owned subsidiary of Transocean Ltd., a Swiss company ("Transocean-Switzerland"), with Transocean-Cayman as the surviving entity (the "Transaction"). As a result of the Transaction, Transocean-Cayman became a wholly-owned subsidiary of Transocean-Switzerland, and each outstanding Ordinary Share was exchanged for registered shares, par value 15.00 Swiss francs per share, of Transocean-Switzerland (the "Registered Shares"). Transocean-Switzerland adopted and assumed the obligations of Transocean-Cayman under the Plans and the Warrants, and Registered Shares have become purchasable or otherwise issuable thereunder in lieu of Ordinary Shares.

This Post-Effective Amendment No. 5 on Form S-3 to the Registration Statement relates only to Ordinary Shares issuable upon exercise of the Warrants. Transocean-Cayman has terminated the offering of Ordinary Shares issuable upon exercise of the Warrants pursuant to the Registration Statement. In accordance with the undertaking of Transocean-Cayman in the Registration Statement, this Post-Effective Amendment is being filed to remove from registration all Ordinary Shares issuable upon exercise of the Warrants not heretofore sold pursuant to the Registration Statement. The Registration Statement is hereby amended, as appropriate, to reflect the deregistration of such Ordinary Shares. The Registration Statement on Form S-3 (Registration No. 333-156379) of Transocean-Switzerland covers the Registered Shares issuable upon exercise of the Warrants.

SIGNATURE

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Houston, the State of Texas, on January 7, 2009.

TRANSOCEAN INC.

By: /s/ C. Stephen McFadin

C. Stephen McFadin Vice President and

Director

Pursuant to the requirements of the Securities Act of 1933, the Registration Statement has been signed by the following persons in the capacities indicated on January 7, 2009.

| <u>Signature</u> | <u>Title</u> | |
|-----------------------------------------------------|-------------------------------------------------------------------------------------|--|
| /s/ C. Stephen McFadin C. Stephen McFadin | Vice President and Director (Principal Executive, Financial and Accounting Officer) | |
| /s/ Anil B. Shah Anil B. Shah | Director | |
| /s/ William H. Gammerdinger William H. Gammerdinger | Director | |