As filed with the Securities and Exchange Commission on September 29, 2004

Registration No. 333-_

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

SUN HYDRAULICS CORPORATION

(Exact Name of Issuer as Specified in its Charter)

Florida

59-2754337

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

1500 West University Parkway Sarasota, FL 34243

(Address of principal executive offices)

SUN HYDRAULICS CORPORATION 2004 NONEMPLOYEE DIRECTOR EQUITY AND DEFERRED COMPENSATION PLAN

(Full Title of Plan)

ALLEN J. CARLSON PRESIDENT AND CEO Sun Hydraulics Corporation 1500 West University Parkway Sarasota, FL 34243 (941) 362-1200

(Name, Address and Telephone Number of Agent for Service)

Copy to:

Gregory C. Yadley, Esquire Shumaker, Loop & Kendrick, LLP 101 East Kennedy Blvd., Suite 2800 Tampa, FL 33602 (813) 229-7600

CALCULATION OF REGISTRATION FEE

TITLE OF SECURITIES TO BE REGISTERED	AMOUNT TO BE REGISTERED (1)(2)	PROPOSED M. OFFERI PRICE PER SI	NG	A	DSED MAXIMUM GGREGATE RING PRICE (3)	OUNT OF
Stock Units Shares of Common Stock, par value \$.001 per share,	80,000 Stock Units		(4)		(4)	(4)
including Shares underlying Stock Units	80,000 shares	\$	12.52	\$	1,001,600	\$ 126.90

- (1) A maximum of 80,000 stock units or shares of common stock may be issued under the 2004 Nonemployee Director Equity and Deferred Compensation Plan. Such shares may be issued from authorized but unissued shares of common stock or treasury shares.
- (2) Pursuant to Rule 416 under the Securities Act of 1933, as amended, this Registration Statement also covers an indeterminate number of additional stock units or shares of common stock as may be issued as a result of adjustments by reason of any stock split, stock dividend or similar transaction.
- (3) Estimated solely for the purpose of calculating the registration fee. Pursuant to Rule 457(h), the fee is calculated on the basis of the average of the high and low prices for the Registrant's common stock reported by The Nasdaq Stock Market on September 28, 2004.
- (4) Each stock unit represents the right to receive one share of common stock at a future date, pursuant to the deferred compensation provisions of the 2004 Nonemployee Director Equity and Deferred Compensation Plan. Upon a distribution to a Plan participant, all Stock Units are payable in shares of common stock on a one-for-one basis.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents filed by the Registrant (Exchange Act File No. 0-21835) with the Securities and Exchange Commission are incorporated herein by reference and made a part hereof:

(a) The Registrant's most recent annual report on Form 10-K, or, if the financial statements therein are more current, the Registrant's most recent prospectus, other than the prospectus of which this document is a part, filed pursuant to rule 424(b) of the Commission under the Securities Act of 1933.

(b) All other reports filed by the Registrant pursuant to sections 13(a) or 15(d) of the Securities Exchange Act of 1934 since the end of the fiscal year covered by the annual report or the prospectus referred to in (a) above.

(c) The description of the Registrant's Common Stock which is contained in the Registrant's registration statement filed under Section 12 of the Securities Exchange Act of 1934, including any amendment or reports filed for the purpose of updating such description.

All documents subsequently filed by the Registrant with the Commission pursuant to Sections 13(a), 13(c), 14, and 15(d) of the Exchange Act after the date of this Registration Statement, but prior to the filing of a post-effective amendment to this Registration Statement which indicates that all securities offered by this Registration Statement have been sold or which deregisters all such securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement. Each document incorporated by reference into this Registration Statement shall be deemed to be a part of this Registration Statement from the date of the filing of such document with the Commission until the information contained therein is superseded or updated by any subsequently filed document which is incorporated by reference into this Registration Statement or by any document which constitutes part of the prospectus relating to the Sun Hydraulics Corporation 2004 Nonemployee Director Equity and Deferred Compensation Plan (the "Plan") which is used to satisfy the requirements of Section 10(a) of the Securities Act of 1933 and Rule 428 promulgated thereunder.

Item 4. Description of Securities

Not applicable.

Item 5. Interests of Named Experts and Counsel

Not applicable.

Item 6. Indemnification of Directors and Officers

As authorized by the Florida Business Corporation Law ("FBCL"), the registrant's Articles of Incorporation ("the Articles") limits the liability of Directors of the registrant for monetary damages. The effect of this provision in the Articles is to eliminate the rights of the registrant and its shareholders (through shareholders' derivative suits on behalf of the registrant) to recover monetary damages against a Director for breach of the fiduciary duty of care as a Director (including breaches resulting from negligent behavior) except in certain limited situations. This provision does not limit or eliminate the rights of the registrant or any stockholder to seek non-monetary relief such as an injunction or rescission in the event of a breach of a Director's duty of care. These provisions will not alter the liability of Directors under federal securities laws.

The Articles provides that the registrant shall indemnify its Directors, officers, employees and agents to the maximum extent and under all circumstances permitted by the FBCL. The registrant believes that these provisions will assist the registrant in attracting and retaining qualified individuals to serve as Directors and officers.

In addition, the registrant has entered into Indemnity Agreements with its Directors and executive officers providing for indemnification to the fullest extent permitted by law. The Indemnity Agreements also establish the presumption that the Director or executive officer has met the applicable standard of conduct required for indemnification. The agreements provide for litigation expenses to be advanced to a Director or executive officer at his or her request provided that he or she undertakes to repay the amount advanced if it is ultimately determined that he or she is not entitled to indemnification for such expenses. The Indemnity Agreements' indemnification provisions applicable to a derivative suit provide for indemnification for amounts paid in settlement and partial indemnification in the event that a Director or executive officer is not entitled to full indemnification.

Item 7. Exemption from Registration Claimed

Not applicable.

Item 8. Exhibits

EXHIBIT INDEX

hibit No.	Description
	Sun Hydraulics Corporation 2004 Nonemployee Director Equity and
	Deferred Compensation Plan Plan (previously filed as Appendix A to the
	Registrant's Proxy Statement for the 2004 Annual Meeting of
	Shareholders, filed with the Commission on May 3, 2004 and incorporated
	herein by reference).
	Opinion of Shumaker, Loop & Kendrick, LLP as to the legality of the securities being registered

Exhibit No.	Description
23.1	Consent of Shumaker, Loop & Kendrick, LLP (included in their opinion filed as Exhibit 5)
23.2	Consent of PricewaterhouseCoopers LLP, independent certified public accountants

Item 9. Undertakings

1. The undersigned registrant hereby undertakes:

(a) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933 (the "Securities Act");

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (1)(a)(i) and (1)(a)(i) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act") that are incorporated by reference in the registration statement.

(b) That, for purposes of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) To remove from registration by means of post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

2. The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

3. The undersigned registrant hereby undertakes to deliver or cause to be delivered with the prospectus, to each person to whom the prospectus is sent or given, the latest annual report to security holders that is incorporated by reference in the prospectus and furnished pursuant to and meeting the requirements of Rule 14a-3 or Rule 14c-3 under the Exchange Act; and, where interim financial information required to be presented by Article 3 of Regulation S-X is not set forth in the prospectus, to deliver, or cause to be delivered to each person to whom the prospectus is sent or given, the latest quarterly report that is specifically incorporated by reference in the prospectus to provide such interim financial information.

4. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding,) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Sarasota, State of Florida, on this 28th day of September, 2004.

SUN HYDRAULICS CORPORATION

By: /s/ Allen J. Carlson

Allen J. Carlson

President and CEO

POWER OF ATTORNEY

Each person whose signature appears below hereby constitutes and appoints Allen J. Carlson his true and lawful attorney-in-fact and agent, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities indicated on this 28th day of September, 2004.

Signature	Title	
/s/ Clyde G. Nixon	Chairman of the Board of Directors	
Clyde G. Nixon /s/ Allen J. Carlson	President, Chief Executive Officer and Director	
Allen J. Carlson /s/ Richard J. Dobbyn	Chief Financial Officer (Principal Financial and	
Richard J. Dobbyn	— Accounting Officer)	
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Signature	Title
/s/ Marc Bertoneche	Director
Marc Bertoneche /s/ John S. Kahler	Director
John S. Kahler /s/ Christine L. Koski	Director
Christine L. Koski /s/ Robert E. Koski	Director
Robert E. Koski /s/ Ferdinand E. Megerlin	Director
Ferdinand E. Megerlin /s/ Hirokatsu Sakamoto	Director
Hirokatsu Sakamoto /s/ David N. Wormley	Director
David N. Wormley	—
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EXHIBIT INDEX

The following exhibits are filed herewith as part of this Registration Statement:

Exhibit No.	Description
4	Sun Hydraulics Corporation 2004 Nonemployee Director Equity and Deferred Compensation Plan (previously filed as Appendix A to the Registrant's Proxy Statement for the 2004 Annual Meeting of Shareholders, filed with the Commission on May 3, 2004 and incorporated herein by reference).
5	Opinion of Shumaker, Loop & Kendrick, LLP as to the legality of the securities being registered
23.1	Consent of Shumaker, Loop & Kendrick, LLP (included in their opinion filed as Exhibit 5)
23.2	Consent of PricewaterhouseCoopers LLP, independent certified public accountants

SHUMAKER, LOOP & KENDRICK, LLP ATTORNEYS AT LAW 101 East Kennedy Blvd., Suite 2800 Tampa, FL 33602 Telephone (813) 229-7600 Telefax (813) 229-1660

September 28, 2004

Sun Hydraulics Corporation 1500 West University Parkway Sarasota, Florida 34243-2290

Re:

Securities and Exchange Commission Registration Statement on Form S-8 Covering 80,000 Stock Units and 80,000 Shares of Common Stock, \$.001 par value

Gentlemen:

We are legal counsel to Sun Hydraulics Corporation, a Florida corporation (the "Company"), and have acted as such in the preparation and filing of its Registration Statement on Form S-8 with the Securities and Exchange Commission (the "SEC") pursuant to the requirements of the Securities Act of 1933, as amended, and the General Rules and Regulations of the SEC promulgated thereunder for the registration of 80,000 Stock Units (the "Stock Units") and 80,000 shares (the "Shares") of the common stock, par value \$.001 per share, of the Company. In connection with the following opinion, we have examined and have relied upon such documents, records, certificates, statements and instruments as we have deemed necessary and appropriate to render the opinion herein set forth.

Based upon the foregoing, it is our opinion that the Stock Units and the Shares, when and if issued in the manner set forth in the Registration Statement, will be legally issued, fully paid and nonassessable.

The undersigned hereby consents to the filing of this opinion as Exhibit 5 to the Registration Statement.

Very truly yours, SHUMAKER, LOOP & KENDRICK, LLP

/s/ Gregory C. Yadley Gregory C. Yadley

CONSENT OF INDEPENDENT REGISTERED CERTIFIED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 25, 2004, relating to the financial statements of Sun Hydraulics Corporation, which appears in Sun Hydraulics Corporation's Annual Report on Form 10-K for the year ended December 27, 2003.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP Tampa, Florida September 28, 2004