

Sun Hydraulics Corporation
1500 West University Parkway
Sarasota, FL 34243

October 9, 2013

VIA EDGAR

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, NE
Washington, D.C. 20549
Attention: Terence O'Brien, Accounting Branch Chief

RE: **Sun Hydraulics Corporation**
Form 10-K
Filed March 12, 2013
File No. 0-21835

Dear Mr. O'Brien:

On behalf of Sun Hydraulics Corporation ("the Company"), I am writing in response to the comments set forth in your letter addressed to the undersigned dated September 26, 2013 (the "Comment Letter"). For the convenience of the Staff of the Division of Corporation Finance of the Securities and Exchange Commission (the "Staff"), each of the Staff's comments is repeated below, along with the Company's response to each comment set forth immediately following the comment.

Comment 1

Form 10-K for the year ended December 29, 2012

18. Segment Reporting, page 52

1. We have read your response to comment 5 in our letter dated September 4, 2013. It is not clear to us how the change from a "sales from" perspective to a "sales to" perspective would necessarily entail a decrease from four reportable segments to just one, if you are selling to areas other than the U.S. We note the example of the quarterly sales report included in your response and the geographic region information in the segment footnote. In this regard, it is not clear why at least the three geographic regions noted from the footnote would not constitute your operating and/or reportable segments. Please explain.

Response to Comment 1

It is our understanding that the financial information required by Item 101(b) of Regulation S-K and Rule 3-03(e) of Regulation S-X is intended to help the audience best understand how management manages the enterprise and makes decisions. Per FASB ASC 280, the Company does not believe that the three geographic regions represent operating segments. The Company believes that the three geographic regions meet the first criteria of engaging in business activities from which it may earn revenues and incur expenses. However, our Chief Executive Officer, who is our sole CODM for the Company's operations worldwide, does not use the geographic region's operating results to make decisions about resource allocation to the region nor to assess the region's performance or that of the employees employed in the region. The Company does not maintain discrete financial information for operating profits derived from sales into these geographic regions. The Company's decision to move to a single reporting segment best informs the audience about how the enterprise is now managed. This

change was made because, increasingly, the Company is shipping products directly from the factory of origin to end-customers worldwide.

Geographic financial information is disclosed in accordance with ASC 280-10-50-41 to supplement our financial information. As stated in the previous comment response letter, net sales information is used by our CODM when assessing top line market growth and penetration. Sales today are split approximately 50% to the Americas, 30% to Europe/Africa/Middle East and 20% to Asia/Pacific. The Company believes that the market demand for its products will be split evenly across these three regions over time, and has consistently communicated this belief to the marketplace. This “sales to” information is valuable and is used to provide insight to investors and analysts. It is perhaps the best indicator of where the Company may make investments and engage in efforts in the future, before the Company may be able to report the same for competitive or disclosure reasons. Regularly we are asked about demand for our products in different geographic regions, as evidenced on our conference calls. While sales information is considered by our CODM and management for such purposes, we do not review or report geographic operating profits because they have proven to be confusing and misrepresentative of the Company’s decision making, especially as most of the Company’s manufacturing is done in the U.S., and then sold through our distribution channel, which includes our foreign subsidiaries. Additionally, Sun’s leaders are not directly compensated for the profitability of individual entities or geographic regions. Compensation is based on the Company’s overall performance and the ability to maximize sales to customers.

Comment 2

2. Please provide to us all reports provided to the CODM during 2011, 2012 and 2013 that present any geographic profitability data. Multiple iterations of the same report do not have to be provided if there are quarterly or annual year-to-date versions of that same report. Please identify your CODM.

Response to Comment 2

The Company’s CODM is its Chief Executive Officer, who is the policymaking officer in charge of all Sun locations and entities. Our CODM reviews profitability of the Company as a whole in our consolidated financial statements as presented in our quarterly press releases and filings. Additionally, our CODM reviews a monthly flash report, an example of which is furnished to the Staff herewith. This report is used to give our CODM a monthly update of consolidated operating results with a break down between our four primary reporting units (U.S., U.K, Germany and Korea), and a minor subsidiary, HCT, which manufactures a particular type of complementary product. The pretax profit data included in the flash report presents profit on a “sales from” basis by reporting unit, but does not provide any profitability based on “sales to” specific geographic regions. The Company does not maintain discrete financial data relating to operating profitability for sales into specific geographic regions. While the flash report shows a break-down of new orders, sales and pretax income by our four primary reporting units, neither our CODM nor management uses that information in making determinations about allocations of resources to the region or subsidiary nor to assess the region’s or subsidiary’s performance or that of the employees employed in the region or by the subsidiary.

Comment 3

3. We note from page 46 that domestic pre-tax profit margin is much higher than foreign pre-tax income. Please tell us and revise future filings in MD&A to explain why this is so. Please ensure that your explanation identifies the specific business, economic and competitive factors that have materially caused the significant disparity between domestic and foreign profit margins, such that readers are clearly able to understand the magnitude of the impact that each factor had on profit margin. Refer to Item 303 of Regulation S-K.

Response to Comment 3

The Company is an engineering and manufacturing company. It has made the decision to consolidate manufacturing for the most part in the U.S. Our foreign subsidiaries primarily act as part of our sales and distribution channel, resulting in the difference in pretax income and margins. Products manufactured in the U.S. are sold worldwide and are the primary reason that pre-tax income in the U.S. is higher than foreign pre-tax income. Manufacturing outside of the U.S. is limited in scope and serves to expand the market for goods produced at the Company's U.S. factories.

The Company primarily goes to market in the U.S. through third party distributors. Internationally, we go to market through both third party distributors and through our subsidiaries. Our subsidiaries sell to third party distributors, as well as direct to customers in their geographic regions.

This information will be included in the MD&A section of future filings.

Comment 4

4. *Please tell us why foreign total assets increased in 2012 whereas domestic total assets decreased.*

Response to Comment 4

The increase in foreign total assets was primarily related to 2012 retained earnings. Asset increases related to investments during 2012 including the acquisition of Seungwon Solutions in Korea and an expansion and update of our UK facility. The remaining increase was primarily related to cash and marketable securities. The decrease in domestic total assets was primarily related to the \$1.00 per share special dividend paid to shareholders at December 28, 2012.

Comment 5

Exhibit 10.4, page 59

5. *We considered your response to comment 6 of our letter dated September 4, 2013, and are unable to concur. Absent an order granting confidential treatment, Item 601(b)(10) of Regulation S-K requires the filing of material contracts, including attachments, in their entirety. Attachments include, for example, annexes, appendices, exhibits, and schedules. Please note that Item 601(b)(2) of Regulation S-K provides a carve-out for schedules or attachments that are not material to an investment decision, but Item 601(b)(10) does not include a similar provision. Please refile Exhibit 10.4 in its entirety with your next Exchange Act report.*

Response to Comment 5

We do not believe that any of the information in the schedules or exhibit to the Credit Agreement would provide material or useful information to investors. The following schedules simply set out the form of documents used in connection with the credit facility: Schedule 1.1-1 - Account Designation Letter; Schedule 2.1(b)(i) - Form of Notice of Borrowing; Schedule 2.7- Form of Notice of Conversion; Schedule 3.3 - Patriot Act Information; Schedule 4.1-1 - Form of Secretary's Certificate; Schedule 4.1-2 - Form of Solvency Certificate; Schedule 4.2(b) - Form of Accordion Note and Schedule 4.2(b)(2) - Form of Security Agreement. Neither the Accordion Note nor the Security Agreement have been executed. These are forms that would be used if the Company decided to utilize the accordion feature of the credit facility. If it did, it would file such documents as required for material agreements.

The following schedules set out information that has already been publicly disclosed in prior reports: Schedule 3.12 - Subsidiaries; Schedule 3.19(c) - Chief Executive Offices/Principal Places of Business; and Schedule 3.23 - Material Contracts.

The following schedules set out information that is otherwise publicly available: Schedule 3.16 - Intellectual Property, which lists all registered trademarks, copyrights and patents, which are available from the USPTO, none of which individually is material to the Company or its business.

The following schedules and sole exhibit, set out information that contains no information that would be material to investors: Schedule 1.1-4 - Permitted Liens; Schedule 1.1-6 - Existing Letters of Credit; Schedule 3.6 - Litigation; Schedule 3.10 - Environmental Issues; Schedule 3.19(a) - Location of Real Property; Schedule 3.19(b) - Location of Collateral; Schedule 3.21 - Labor Matters Schedule 5.5(b) - Insurance; Schedule 6.1(b) - Indebtedness; and Exhibit A - legal description of real property.

The schedules and exhibit consist of 46 pages, and converting them into the form necessary for filing through the EDGAR system would require additional time and expense, with no benefit to investors.

We would be happy to scan the set of schedules and email them to you for your review in connection with the resolution of this comment.

Comment 6

Schedule 14A filed on April 12, 2013

2012 Executive Compensation , page 18

6. We note your response to comment 10 of our letter dated September 4, 2013, that the Compensation Committee only occasionally reviews surveys or other compensation data. In future filings, if applicable, please disclose to what extent the Compensation Committee utilizes surveys or other compensation data to establish the monetary pool for that particular year.

Response to Comment 6

In future filings, if applicable, the Company will disclose to what extent the Compensation Committee utilized surveys or other compensation data to establish the monetary pool for that particular year.

The Company believes that the foregoing responds fully to each of the questions in the Staff's September 26, 2013, Comment Letter. Please advise us if you have any questions about our responses.

Respectfully submitted,

SUN HYDRAULICS CORPORATION

By: /s/ Tricia L. Fulton

Tricia L. Fulton

Chief Financial Officer

cc: Allen Carlson, Chief Executive Officer, Sun Hydraulics Corporation
Gregory C. Yadley, Esq., Shumaker, Loop & Kendrick, LLP

Sun Hydraulics Corporation
2013 Orders, Sales, and Pretax
Income Flash Report
Worldwide

ORDERS

	Q1	April	May	June	Q2	YTD
US Operations	\$ 45,420	\$ 14,460			\$ 14,460	\$ 59,880
UK	5,253	1,523			1,523	6,775
Germany	6,607	2,249			2,249	8,856
Korea	5,315	1,746			1,746	7,062
HCT	853	380			380	1,233
Total before eliminations	\$ 63,448	\$ 20,357	—	—	\$ 20,357	\$ 83,806
Eliminations:						
US Operations	7,208	2,391			2,391	9,598
UK	402	121			121	523
Germany	—	—			—	—
Korea	—	—			—	—
Eliminations	\$ 7,609	\$ 2,512	—	—	\$ 2,512	\$ 10,121
Total Net Orders	\$ 55,839	\$ 17,845	—	—	\$ 17,845	\$ 73,684
Average weekly rate	4,295	4,461	—	—	1,373	
Change from prior year	(5)%	5%	(100)%	(100)%	(68)%	

SALES

	Q1	April	May	June	Q2	YTD
US Operations	\$ 41,165	\$ 14,359			\$ 14,359	\$ 55,524
UK	5,019	1,729			1,729	6,748
Germany	6,754	2,103			2,103	8,856
Korea	5,420	1,830			1,830	7,250
HCT	721	288			288	1,009
Total before eliminations	\$ 59,078	\$ 20,309	—	—	\$ 20,309	\$ 79,388
Eliminations:						
US Operations	7,534	2,371			2,371	9,905
UK	450	161			161	611
Germany	35	10			10	44
Korea	—	—			—	—
Eliminations	\$ 8,018	\$ 2,542	—	—	\$ 2,542	\$ 10,560
Total Net Sales	\$ 51,060	\$ 17,768	—	—	\$ 17,768	\$ 68,828
Average weekly rate	3,928	4,442	—	—	1,367	
Change from prior year	(8)%	(6)%	(100)%	(100)%	(69)%	

PRETAX INCOME						
	Q1	April	May	June	Q2	YTD
US Operations	\$ 11,134	\$ 4,541			\$ 4,541	\$ 15,676
UK	1,183	257			257	1,439
Germany	1,532	484			484	2,016
Korea	658	128			128	786
HCT	(260)	(36)			(36)	(296)
Total before eliminations	\$ 14,246	\$ 5,375	—	—	\$ 5,375	\$ 19,620
Eliminations	(92)				14	(77)
Total Pretax Income	\$ 14,154	\$ 5,375	—	—	\$ 5,389	\$ 19,543