

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

October 21, 2013

Via E-mail
Ms. Tricia L. Fulton
Chief Financial Officer
Sun Hydraulics Corporation
1500 West University Parkway
Sarasota, FL 34243

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

Dear Ms. Fulton:

We have reviewed your response dated October 9, 2013 and have the following comments.

Please respond to this letter within ten business days by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

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

18. Segment Reporting, page 52

1. We have read your responses to comments 1 and 2 in our letter dated September 26, 2013. It remains unclear 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. In your response to comment 1, you have told us that your CODM "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." However, in your response to comment 2, it appears the CODM receives this information on a monthly basis and uses it for some purpose. Please tell us on what specific information the CODM relies to make such resource allocation decisions and performance assessments. Considering the CODM report provided in your response is only through April 2013, it would appear that your US and Germany reporting units may constitute your reportable segments, pursuant to ASC 280-10-50-12 and 50-14. Please

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advise. Also as previously requested, please provide us this CODM "flash report" for the fiscal years 2012 and 2011.

Exhibit 10.4, page 59

2. We considered your response to comment 5 of our letter dated September 26, 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. Please refile Exhibit 10.4 in its entirety with your next Exchange Act report.

You may contact Jenn Do at (202) 551-3743, Al Pavot at (202) 551-3738, or me at (202) 551-3355 if you have questions regarding comments on the financial statements and related matters. Please contact Asia Timmons-Pierce at (202) 551-3754, or, in her absence, Jay Ingram, Branch Chief, at (202) 551-3397, with any other questions.

Sincerely,

/s/ Terence O'Brien

Terence O'Brien Branch Chief