

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549-7010

Mail Stop 7010

December 2, 2008

via U.S. mail and facsimile

Allen J. Carlson, Chief Executive Officer Sun Hydraulics Corporation 1500 West University Parkway Sarasota, Florida 34243

> RE: Sun Hydraulics Corporation Form 10-K for the Fiscal Year Ended December 29, 2007 Filed March 12, 2008

Schedule 14A Filed on April 25, 2008 Forms 10-Q for the Fiscal Quarters Ended March 29, 2008,

June 28, 2008 and September 27, 2008

File No. 0-21835

Dear Mr. Carlson:

We have reviewed your response letter dated November 17, 2008 and have the following additional comments. In our comment, we ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Form 10-K for the Fiscal Year Ended December 29, 2007

13. Income Taxes, page 42

- 1. We note your response to comment 6 in our letter dated November 3, 2008. Please help us better understand management's decisions to repatriate \$5 million and \$6 million of foreign earnings during fiscal year 2006 and July 2008, respectively.
 - We note that you repatriated \$5 million of foreign earnings to take advantage of
 favorable tax rates in fiscal year 2006. Please provide us with a comprehensive
 explanation of the facts and circumstances surrounding your decision in fiscal
 year 2006. Please ensure your response addresses each of the following in
 addition to other material information used by management to make their
 decision:
 - State the specific favorable tax rates (e.g., US federal income tax rate, etc.) that were taken advantage of.
 - Quantify the favorable tax rates used in fiscal year 2006 and the tax rates that were in place before the change.

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- Quantify the impact on the financial statements from repatriating the foreign earnings using the favorable tax rates and what the impact would have been to repatriate these foreign earnings under the previous tax rates. Ensure your explanation clearly communications the amount you saved by repatriating the earnings using the favorable tax rates as compared to the previous tax rates.
- Explain why the tax rates changed, including when the favorable tax rate change occurred; if the favorable tax rates were temporary changes or permanent changes; and if the favorable tax rates had occurred previously.
- We further note that you repatriated \$6 million of foreign earnings to take advantage of favorable foreign currency exchange rates in July 2008. Please provide us with a comprehensive explanation of the facts and circumstances surrounding your decision in July 2008. Please ensure your response addresses each of the following in addition to other material information used by management to make their decision:
 - State the foreign currency exchange rates that were considered favorable.
 - Quantify those foreign currency exchange rates used in July 2008 and what those foreign currency exchanges rates were as of December 31, 2007. State whether these favorable foreign currency exchange rates were ever at these rates.
 - Quantify the financial statements impact for repatriating the foreign earnings at these favorable foreign currency exchange rates during July 2008. Quantify the financial statements impact had you repatriated the \$6 million as of December 31, 2007using the foreign currency exchange rates for that period. Ensure you clearly communicate the amount you saved by repatriating the earnings using the favorable foreign currency exchange rates in July 2008 as compared to the foreign currency exchange rates for December 31, 2007.
 - Tell us the business purpose of repatriating foreign earnings when foreign currency exchange rates are favorable, as the US parent company did not need the cash.
- We note your statement on page 43 of the December 31, 2007 Form 10-K, "In the event any earnings of non-U.S. subsidiaries are repatriated, the Company will provide U.S. income taxes upon repatriation of such earnings, which will be offset by applicable foreign tax credits, subject to certain limitations." Please provide us with the following regarding your foreign tax credits and the limitations regarding their use/recognition:
 - Please quantify the amount of unrecognized foreign tax credits that could be used to offset any deferred tax liability recognized for your cumulative foreign earnings. Please also quantify the deferred tax asset that would be recognized for these foreign tax credits.
 - Please explain to us the restrictions for recognizing a deferred tax asset for your foreign tax credits.

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As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter on EDGAR that keys your responses to our comments and provides any requested information. Detailed response letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

You may contact Tracey Houser, Staff Accountant, at (202) 551-3736, or in her absence, 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. For other comments, please contact Sherry Haywood at (202) 551-3345, or in her absence, Pamela Long, Assistant Director, at (202) 551-3760.

Sincerely,

Terence O'Brien Accounting Branch Chief