

Double Tandem Barge Tow Across the Pacific



A new naval architectural design company, Capilano Maritime Design Ltd., has had its first designs delivered. The vessels are four 80-metre (262-foot) long heavy deck barges commissioned by Seaspan International Ltd. of Vancouver and built in China.

Remarkably, the 6,000-dwt barges were designed, drawings approved by Lloyd's, built in China and delivered across the Pacific ocean all within a one-year period.

The four barges have been designed for Seaspan's bulk cargo (gravel, lime rock, sand, etc.) services along the coast of the Pacific Northwest. In addition, the bulkheads and main transverse structure has been positioned so as to support a full deck load of up to 168 loaded 40-foot standard containers.

Features of the barges include an optimized hull shape utilizing a large radiused forward rake and a relatively shall-

low rake at the stern. These features are designed to optimize the water flow around the barge hulls, thus reducing resistance. Directional stability of the barges is enhanced by the use of side shell skegs at the stern and heavy scalloping of the rake plating forward.

The barges were delivered across the Pacific, towed by **Seaspan Commodore**, on a double tow. Two of the barges were carried "piggy-back" on their sister vessels.

Feedback to the designers from this delivery voyage and from early commercial voyages on the coast confirms the barges' ease of tow (increased speed) and superior directional stability.

The main decks are designed for the use of heavy wheeled vehicles in the loading and unloading process. The decks are of 0.75-inch plate with eight- by four- by 0.5-inch supporting angles. H&S

